10/763,076

FILE 'HOME' ENTERED AT 08:32:10 ON 30 AUG 2006

=> file reg
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 08:32:41 ON 30 AUG 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 29 AUG 2006 HIGHEST RN 905300-98-3
DICTIONARY FILE UPDATES: 29 AUG 2006 HIGHEST RN 905300-98-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

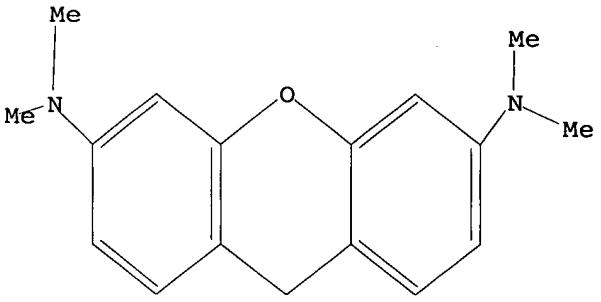
http://www.cas.org/ONLINE/UG/regprops.html

*** YOU HAVE NEW MAIL ***

=>
Uploading C:\Program Files\Stnexp\Queries\10763076.str

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 08:33:45 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 458 TO ITERATE

100.0% PROCESSED 458 ITERATIONS 50 ANSWERS

```
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          7877 TO    10443
PROJECTED ANSWERS:              768 TO     1712

L2           50 SEA SSS SAM L1

=> file caplus
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.88       1.09

FILE 'CAPLUS' ENTERED AT 08:33:55 ON 30 AUG 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 30 Aug 2006  VOL 145 ISS 10
FILE LAST UPDATED: 29 Aug 2006  (20060829/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> s l2
L3           56 L2

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4           56 DUP REM L3 (0 DUPLICATES REMOVED)

=> d l4 bib abs hitstr 1-56

L4   ANSWER 1 OF 56  CAPLUS  COPYRIGHT 2006 ACS on STN
AN   2006:269695  CAPLUS
DN   144:327394
TI   Fluorescent isotope tags for quantification of proteins
IN   Agnew, Brian; Gee, Kyle Richard
PA   USA
SO   U.S. Pat. Appl. Publ., 28 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    --------------------   --------
PI   US 2006063269        A1    20060323    US 2005-157467         20050620
PRAI US 2004-580842P      P     20040618
OS   MARPAT 144:327394
```

AB The invention provides reactive heterocyclic fluorescent compds. that incorporate stable isotopic (deuterium, 13-carbon, 15-nitrogen, 18-oxygen) substitutions for use in combination with non-isotopically substituted analogs for the purification, identification and relative quantification of proteins, peptides, saccharides, metabolites, and other biol. important compds. by combining liquid chromatog. (LC) and mass spectrometry (MS). Fluorescent labeling of target compds. in this manner provides orders-of-magnitude sensitivity enhancement over traditional stable isotope labels and also affords the possibility of simultaneous multiplexed anal. due to the multiwavelength nature of different fluorophores. Thus, 6-TAMRA-proline succinimidyl ester (6-TAMRA = 6-carboxytetramethylrhodamine) and the analog in which the proline is labeled with carbon-13 and nitrogen-15 were prepared and reacted with angiotensin I. MALDI anal. of product samples showed mass peaks at 1806 and 1812.

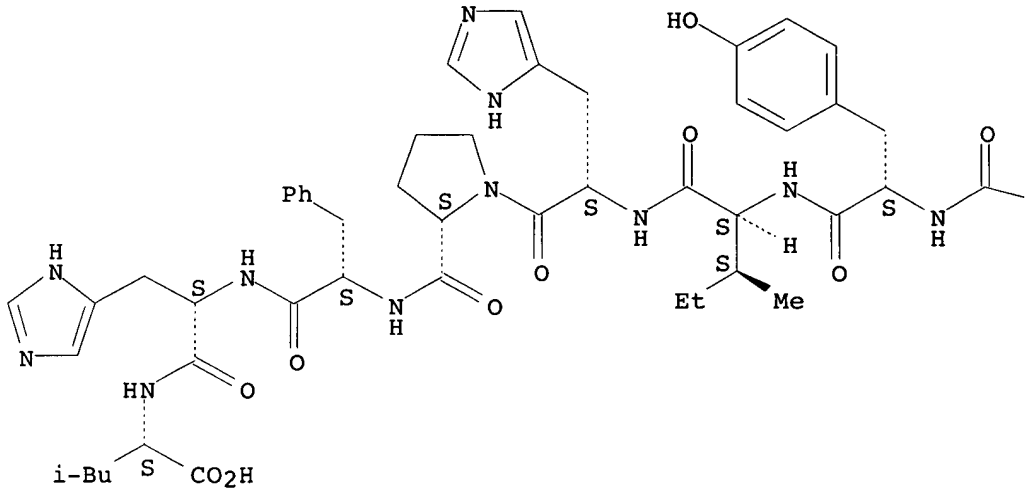
IT 880130-34-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorescent isotope tags for quantification of proteins)

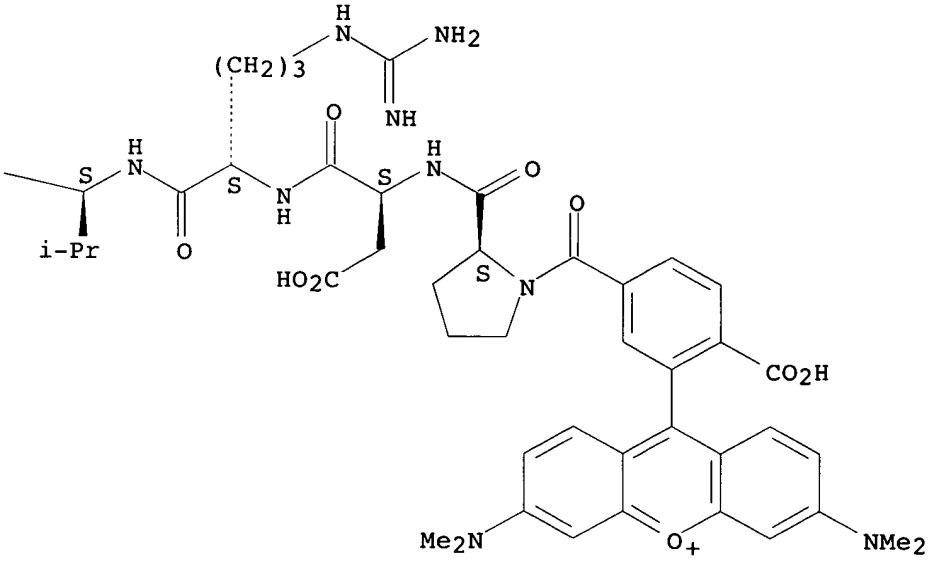
RN 880130-34-7 CAPLUS

CN L-Leucine, 1-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-prolyl-L-α-aspartyl-L-arginyl-L-valyl-L-tyrosyl-L-isoleucyl-L-histidyl-L-prolyl-L-phenylalanyl-L-histidyl-, chloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

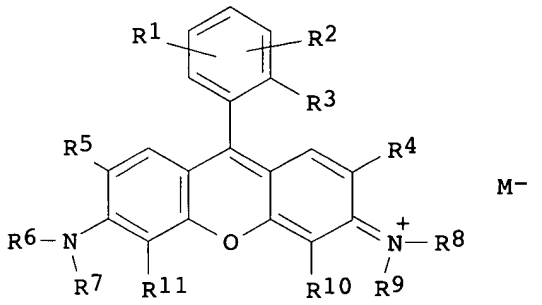




L4 ANSWER 2 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1004955 CAPLUS
DN 143:295246
TI Fluorescent probes
IN Nagano, Tetsuo; Wada, Yoko; Urano, Yasuteru
PA Daiichi Pure Chemicals Co., Ltd., Japan
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005085811	A1	20050915	WO 2005-JP3569	20050303
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	JP 2004-60080	A	20040304		

OS MARPAT 143:295246
GI



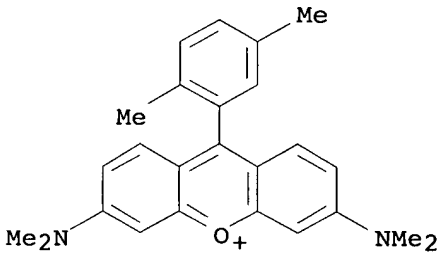
I

AB The invention relates to fluorescent probes represented by the general formula I, where R1 and R2 are each hydrogen or a substituent for capturing a proton, a metal ion, or an active oxygen species; R3 is a monovalent substituent except hydrogen, carboxyl, and sulfo; R4 and R5 are each hydrogen, halogeno, or alkyl; R6 to R9 are each alkyl; R10 and R11 are each hydrogen, halogeno, or alkyl; M- is a counter ion; and before the capture of a proton, a metal ion, or an active oxygen species, the combination of R1, R2, and R3 gives the benzene ring to which they are bonded such a substantially high electron d. as to make the compound substantially nonfluorescent, while after the capture of a proton, a metal ion, or an active oxygen species, the combination brings about such a substantial lowering in the electron d. of the benzene ring to which they are bonded as to make the compound substantially highly fluorescent.

IT 864390-13-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(fluorescent probes)

RN 864390-13-6 CAPLUS

CN Xanthylium, 3,6-bis(dimethylamino)-9-(2,5-dimethylphenyl)-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:158631 CAPLUS

DN 142:261567

TI Preparation of crown ether derivatives as metal chelating agents

IN Gee, Kyle; Martin, Vladimir

PA Molecular Probes, Inc., USA

SO PCT Int. Appl., 136 pp.
CODEN: PIXXD2

DT Patent

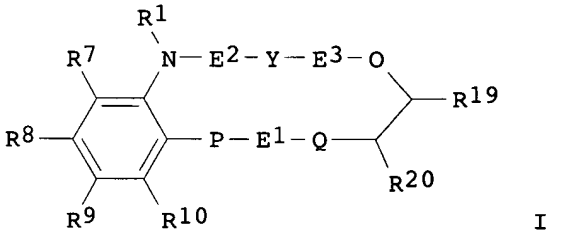
LA English

FAN.CNT 1

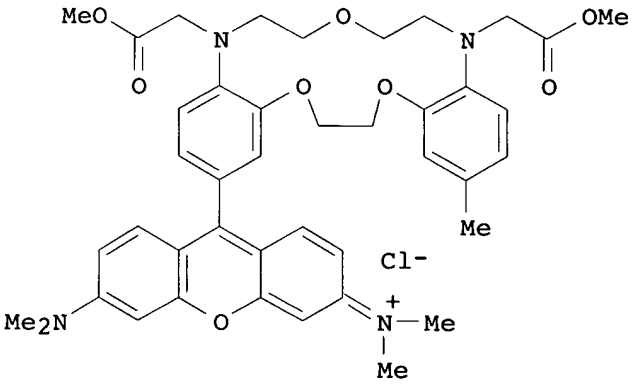
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005016874	A2	20050224	WO 2003-US24662	20030804
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003278705	A1	20050307	AU 2003-278705	20030804
	EP 1660884	A2	20060531	EP 2003-770230	20030804
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	WO 2003-US24662	A	20030804		

OS MARPAT 142:261567

GI



I



II

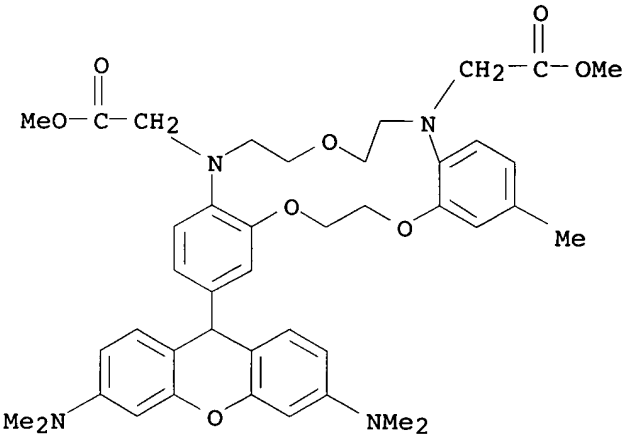
AB The invention describes crown ether chelators having the formula (I) [Y, P, Q = O, S, (un)substituted NH, absent;, L is independently a covalent linkage; each Rx is independently a reactive group; E1, E2, E3 = independently -[C(R5)2]n-, -(COCH2)n-, -[C(R5)2]nO[C(R5)2]n; or E2 is absent; where n = 2, 3 or 4; R5 = independently H or Me, or two R5 moieties on adjacent carbons of one or more of E1, E2 or E3, when taken in combination, form a 5- or 6-membered aliphatic ring; R1 = each (un)substituted -L-Rx, -L-Sc, -L-DYE, C1-18 alkyl, or C7-18 arylalkyl; R7, R8, R9, R10, R19, R20 = H, halogen, azido, nitro, nitroso, amino, cyano, each (un)substituted -L-Rx, -L-Sc, -L-DYE, C1-6 alkyl, or C1-6 alkoxy; or R19 and R20 taken in combination form an (un)substituted fused six-membered benzo moiety; or any two adjacent substituents R7-R10, taken

in combination, form an (un)substituted fused six-membered benzo moiety; or any two adjacent substituents R7-R10, or R19 and R20, taken in combination with each other, form a fused DYE; wherein L = a covalent linkage; Sc = a conjugated substance; DYE = a reporter mol.] and aza-substituted and thia-substituted analogs thereof. These crown ethers may be substituted by a dye moiety, a chemical reactive group, a conjugated substance, or a combination thereof. Chelators that are substituted by fluorescent dyes, e.g. (II), are particularly useful as indicators for metal cations, particularly Na+ and K+ ions, and particularly where binding of the target ion results in a change in the fluorescence properties of the indicator that can be correlated with the ion concentration Methods are provided for utilizing reactive groups on the chelators for conjugation to dyes, lipids and polymers and methods for enhancing entry of the indicators into living cells.

IT 481666-99-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of crown ether derivs. as metal chelating agents or fluorescence indicators)

RN 481666-99-3 CAPLUS

CN 5H,11H-Dibenzo[e,n][1,4,10,7,13]trioxadiazacyclopentadecine-5,11-diacetic acid, 2-[3,6-bis(dimethylamino)-9H-xanthen-9-yl]-6,7,9,10,17,18-hexahydro-14-methyl-, dimethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1201099 CAPLUS

DN 143:472091

TI Zinc binding compounds and their method of use

IN Gee, Kyle R.

PA USA

SO U.S. Pat. Appl. Publ., 39 pp.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005250214	A1	20051110	US 2004-840712	20040505
PRAI	US 2004-840712		20040505		

OS MARPAT 143:472091

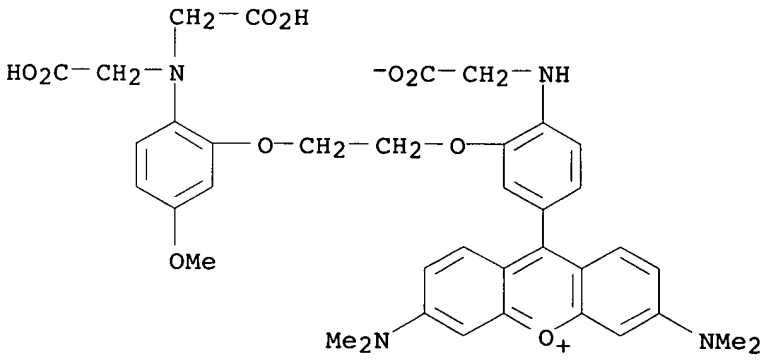
AB The present invention provides a metal chelator and methods that facilitate binding, detecting, monitoring and quantitating of zinc ions in a sample. The metal chelating moiety of the zinc-binding compound is an analog of the known calcium chelator, BAPTA (1,2-bis(2-aminophenoxy)ethane-

N,N,N'N'-tetraacetic acid), wherein the chelating moiety was modified from a tetraacetic acid moiety to a tri- di- or monoacetic moiety. This change in acetic acid groups on the metal chelating moiety results in the selective bindings of zinc ions in the presence of calcium ions, both of which are present in biol. fluids and intracellular cytosolic fluid and organelles.

IT 677716-65-3P
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(zinc chelator and methods for binding and determination of zinc ions in samples)

RN 677716-65-3 CAPLUS

CN Xanthylium, 9-[3-[2-[2-[bis(carboxymethyl)amino]-5-methoxyphenoxy]ethoxy]-4-[(carboxymethyl)amino]phenyl]-3,6-bis(dimethylamino)-, inner salt, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

L4 ANSWER 5 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:959726 CAPLUS

DN 143:271925

TI Composition containing mixed dyes based on azo or tri(hetero)aryl chromophores

IN Greaves, Andrew; David, Herve; Samain, Henri

PA L'oreal, Fr.

SO Fr. Demande, 65 pp.
CODEN: FRXXBL

DT Patent

LA French

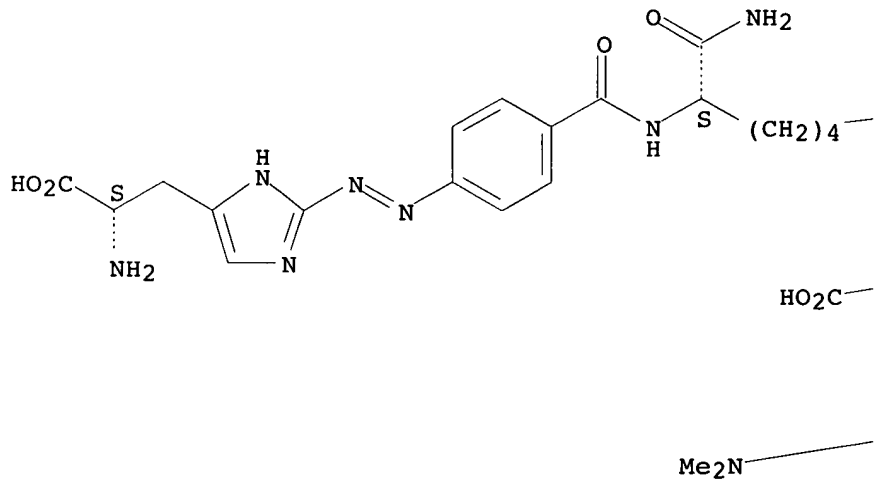
FAN.CNT 3

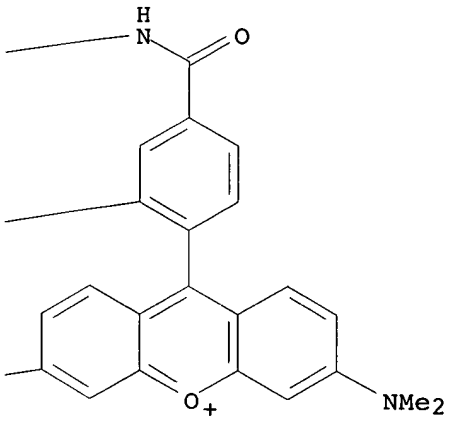
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2866806	A1	20050902	FR 2004-50380	20040227
	FR 2866805	A1	20050902	FR 2004-7022	20040625
	EP 1574205	A2	20050914	EP 2005-290441	20050225
	EP 1574205	A3	20051005		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
	BR 2005000685	A	20060411	BR 2005-685	20050225
	JP 2005247847	A2	20050915	JP 2005-53334	20050228
	CN 1679491	A	20051012	CN 2005-10052467	20050228
	US 2005241074	A1	20051103	US 2005-66459	20050228
	FR 2879929	A1	20060630	FR 2005-13053	20051221

PRAI FR 2004-50380 A 20040227
US 2004-568270P P 20040506
FR 2004-7021 A3 20040625
FR 2004-7022 A 20040625
OS MARPAT 143:271925
AB The present invention has as an aim a tinctorial composition comprising one or more mixed dyes including at least one chromophore of azo type or of tri(hetero)aryl methane type. It concerns moreover a process of keratinous fiber coloring, in particular human.
IT 304450-08-6P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(composition containing mixed dyes based on azo or tri(hetero)aryl chromophores)
RN 304450-08-6 CAPLUS
CN Xanthylium, 9-[4-[[[(5S)-6-amino-5-[[4-[[4-[(2S)-2-amino-2-carboxyethyl]-1H-imidazol-2-yl]azo]benzoyl]amino]-6-oxohexyl]amino]carbonyl]-2-carboxyphenyl]-3,6-bis(dimethylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

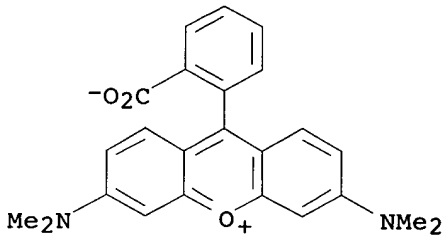
PAGE 1-A

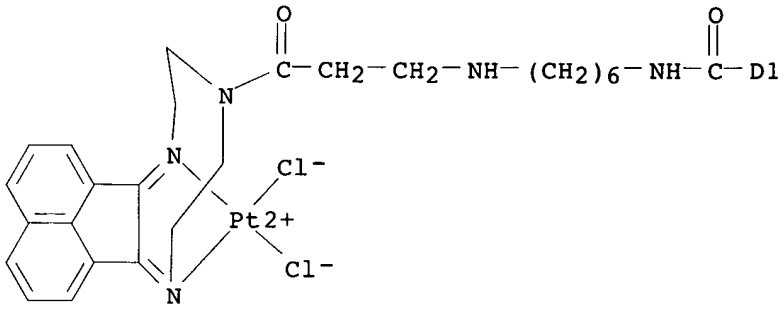




RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:1146723 CAPLUS
DN 144:45127
TI In Vitro Anticancer Activities and Optical Imaging of Novel Intercalative Non-Cisplatin Conjugates
AU Gao, Jian; Woolley, F. Ross; Zingaro, Ralph A.
CS Department of Radiology, School of Medicine, University of Texas Health Science Center at San Antonio, San Antonio, TX, 78229-3900, USA
SO Journal of Medicinal Chemistry (2005), 48(23), 7192-7197
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
AB The first π-conjugated macrocyclic diimine and triaza DNA-binding intercalators and their platinum(II) conjugates have been synthesized by direct Schiff base cyclocondensation. The in vitro anticancer activities of compds. 3, 4, and 5 were tested on five cancer cell lines: MCF-7, A549, P388, A2780, and A2780cisR. Ovarian tumors were included specifically to evaluate the new conjugates ability to circumvent A2780cisR resistance. Antitumor effects of the newly conjugated compds. were compared to those of cisplatin. The data clearly indicate that improved drug efficiencies are achieved as a result of the intercalative moieties. The luminescent probe that was integrated in complexes 8-10 made it possible to monitor drug penetration using optical imaging. Enhanced targeting of tumor nuclei by the study compds. was confirmed by confocal microscopy. This paper describes a new class of platinum-based antitumorals differing from cisplatin in several critical aspects with the potential for significantly improving clin. outcomes in cancer patients.
IT 871467-86-6P
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(intercalative platinum conjugates preparation, antitumor action, and rhodamine tagging for optical imaging of cellular distribution)
RN 871467-86-6 CAPLUS
CN Platinum, dichloro[9-[2-carboxy-4(or 5)-[[[6-[[3-oxo-3-(8,9,11,12-tetrahydro-10H-acenaphtho[1,2-b][1,4,7]triazonin-10-yl-κN7,κN13)propyl]amino]hexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)xanthyliumato]- (9CI) (CA INDEX NAME)





RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:878499 CAPLUS
DN 141:328168
TI Acyl-phosphate probes, methods for their synthesis, and their use in protein labeling
IN Campbell, David Alan; Liyanage, Marek; Szardenings, Anna Katrin; Wu, Min
PA Activx Biosciences, Inc., USA
SO PCT Int. Appl., 117 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004090154	A2	20041021	WO 2004-US10075	20040401
	WO 2004090154	A3	20050506		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004227362	A1	20041021	AU 2004-227362	20040401
	CA 2521130	AA	20041021	CA 2004-2521130	20040401
	US 2005043507	A1	20050224	US 2004-817454	20040401
	EP 1616034	A2	20060118	EP 2004-758736	20040401
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
PRAI	US 2003-459797P	P	20030401		
	WO 2004-US10075	A	20040401		

OS MARPAT 141:328168

AB The present invention provides tagged acyl phosphate probes ('TAPPs'), and methods of their preparation and use. The subject methods and compns. can provide enhanced simplicity and accuracy in identifying changes in the presence, amount, or activity of target proteins in a complex protein mixture, preferably nucleotide binding proteins using nucleotide binding protein-directed TAPPs. The profiling methods described herein can have a number of steps leading to the identification of target nucleotide binding protein(s) in a complex protein mixture Thus, 32 different nucleotides labeled via a phosphate group with fluorophores or biotin were synthesized. These were used to label protein mixts. Labeled nucleotide-binding proteins were isolated by affinity chromatog. and identified by mass spectrometry.

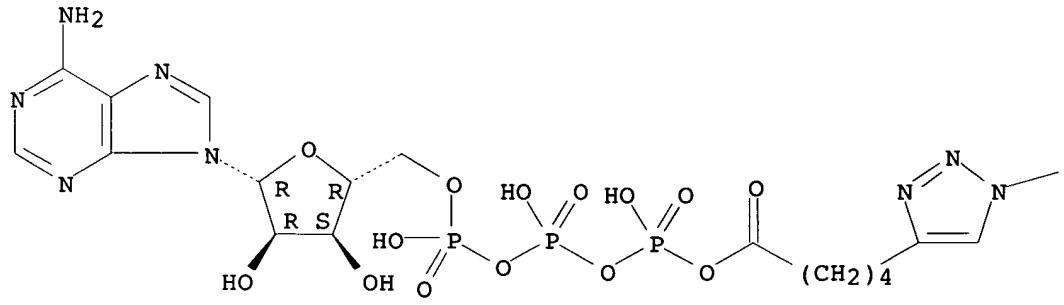
IT 773149-71-6P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(acyl-phosphate probes, methods for their synthesis, and their use in protein labeling)

RN 773149-71-6 CAPLUS

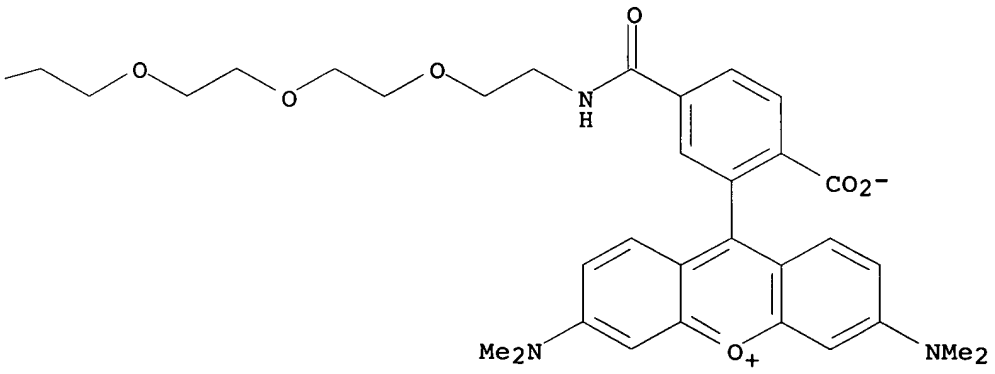
CN Adenosine 5'-(tetrahydrogen triphosphate), P''-anhydride with 9-[2-carboxy-5-[13-[4-(4-carboxybutyl)-1H-1,2,3-triazol-1-yl]-1-oxo-5,8,11-trioxa-2-azatridec-1-yl]phenyl]-3,6-bis(dimethylamino)xanthylium inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L4 ANSWER 8 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:493991 CAPLUS
DN 141:38851
TI Labeling methodology comprising oligopeptides
IN Auer, Manfred; Meisner, Nicole-Claudia; Seifert, Jan-Marcus
PA Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.
SO PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004051270	A2	20040617	WO 2003-EP13715	20031204
	WO 2004051270	A3	20041229		
	W: AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW				
	RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
	AU 2003293766	A1	20040623	AU 2003-293766	20031204
	US 2006134691	A1	20060622	US 2005-534966	20050516
PRAI	GB 2002-28429	A	20021205		
	WO 2003-EP13715	W	20031204		

OS MARPAT 141:38851
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A method for providing a labeled target protein or labeled target peptide in high purity comprises the steps of (a) contacting the protein or peptide containing an affinity tagging residue which may be detected by phys. means and optionally spacer and linker residues with an affinity support, (b) removing impurities in the reaction mixture surrounding the affinity support to which the mol. is bound, and (c) cleaving or eluting the mol. from the affinity support. The method is useful, e.g., for ultra high-throughput screening (HTS), especially spectroscopic HTS systems at single mol. resolution Twenty-six compds. of the invention, e.g., I, were synthesized.

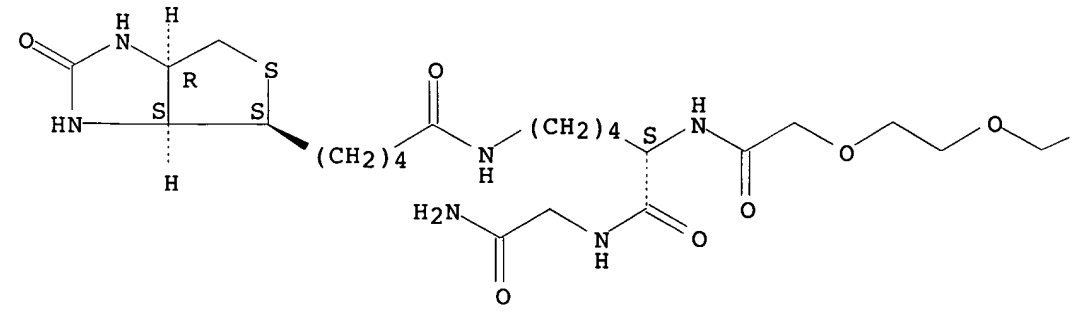
IT 704894-10-0P
RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(labeling of oligopeptides for use in high-throughput screening)

RN 704894-10-0 CAPLUS

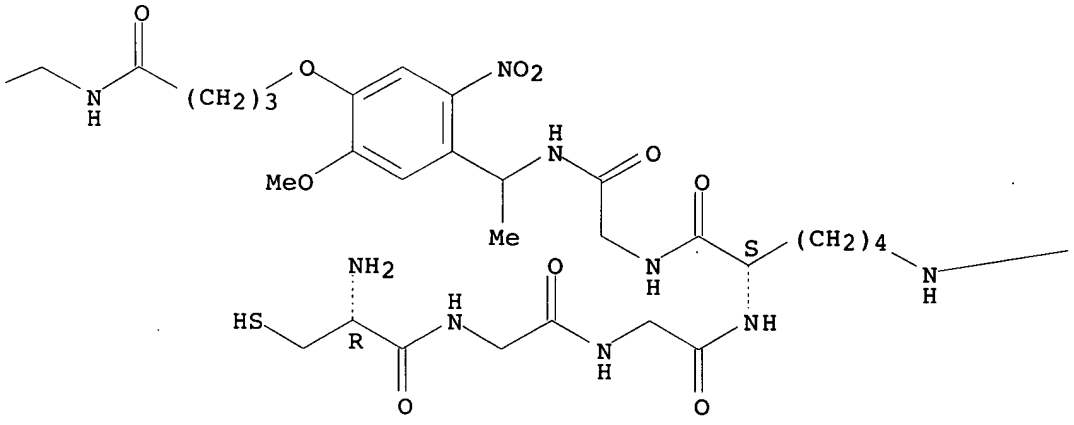
CN Glycinamide, L-cysteinylglycylglycyl-N6-[N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]glycyl]-L-lysylglycyl-4-[4-(1-aminoethyl)-2-methoxy-5-nitrophenoxy]butanoyl[2-(2-aminoethoxy)ethoxy]acetyl-N6-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-L-lysyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

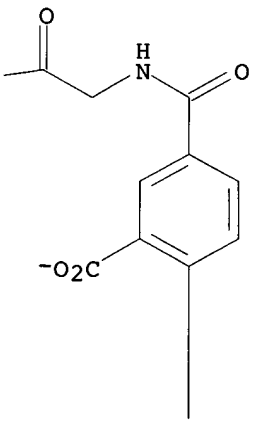
PAGE 1-A



PAGE 1-B

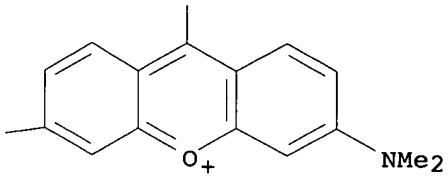


PAGE 1-C



PAGE 2-B

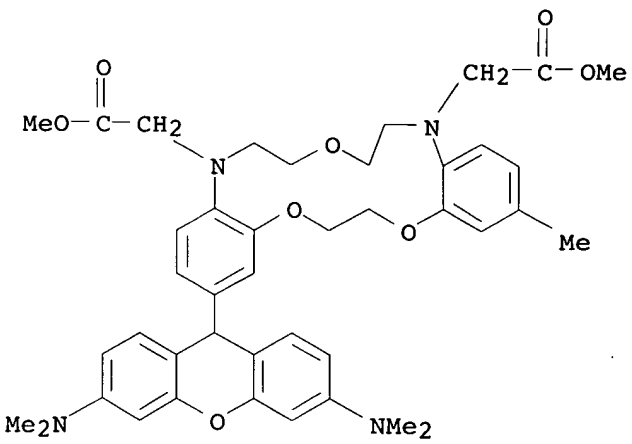
PAGE 2-C



L4 ANSWER 9 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:414526 CAPLUS
DN 140:424969
TI Metal-complexing crown ether fluorescent indicators and their use with biological systems
IN Martin, Vladimir V.; Gee, Kyle
PA USA
SO U.S. Pat. Appl. Publ., 72 pp., Cont.-in-part of U.S. Ser. No. 26,302.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004096978	A1	20040520	US 2003-634336	20030804
	US 2002164616	A1	20021107	US 2001-26302	20011219
	US 6962992	B2	20051108		
PRAI	US 2000-258266P	P	20001220		
	US 2001-26302	A2	20011219		

OS MARPAT 140:424969
AB The invention discloses dibenzocrown ether chelators. These crown ethers are substituted by a dye moiety, a chemical reactive group, a conjugated substance, or a combination thereof. Chelators that are substituted by fluorescent dyes are particularly useful as indicators for metal cations, particularly Na + and K + ions, and particularly where binding of the target ion results in a change in the fluorescence properties of the indicator that can be correlated with the ion concentration Methods are provided for utilizing reactive groups on the chelators for conjugation to dyes, lipids, and polymers and methods for enhancing entry of the indicators into living cells.
IT 481666-99-3P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(production of metal-complexing crown ether fluorescent indicators and their use with biol. systems)
RN 481666-99-3 CAPLUS
CN 5H,11H-Dibenzo[e,n][1,4,10,7,13]trioxadiazacyclopentadecine-5,11-diacetic acid, 2-[3,6-bis(dimethylamino)-9H-xanthen-9-yl]-6,7,9,10,17,18-hexahydro-14-methyl-, dimethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 10 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:414513 CAPLUS
DN 140:419882
TI Fluorescent peptide substrates for the detection of enzyme activity in biological samples
IN Packard, Beverly S.; Komoriya, Akira
PA OncoImmunin, Inc., USA
SO U.S. Pat. Appl. Publ., 114 pp., Cont.-in-part of Appl. No. PCT/US00/24882.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004096926	A1	20040520	US 2001-874350	20010604
	US 6037137	A	20000314	US 1997-802981	19970220
	WO 9837226	A1	19980827	WO 1998-US3000	19980220
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6936687	B1	20050830	US 1999-394019	19990910
	WO 2001018238	A1	20010315	WO 2000-US24882	20000911
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 1997-802981	A2	19970220		
	WO 1998-US3000	A2	19980220		
	US 1999-394019	A2	19990910		
	WO 2000-US24882	A2	20000911		

OS MARPAT 140:419882
AB The present invention provides for novel reagents whose fluorescence increases in the presence of particular proteases. The reagents comprise a characteristically folded peptide backbone conjugated to two

fluorophores such that the fluorophores are located opposite sides of a cleavage site. When the folded peptide is cleaved, as by digestion with a protease, the fluorophores provide a high intensity fluorescent signal at a visible wavelength. Because of their high specificity and their high fluorescence signal in the visible wavelengths, these protease indicators are particularly well suited for detection of protease activity in biol. samples, in particular in frozen tissue sections. In one example, the protease indicator having the formula F1-Asp-Ala-Ile-Pro-Nle-Ser-Ile-Pro-Cys-F2, where F1 is a donor fluorophore (5-carboxytetramethylrhodamine) linked to aspartic acid via the α-amino group and F2 is an acceptor fluorophore (rhodamine X acetamide (R492)) linked via the sulfhydryl group of the cysteine, exhibits changes in emission spectrum after addn of an elastase protease. Thus this invention also provides for methods of detecting protease activity in situ in frozen sections.

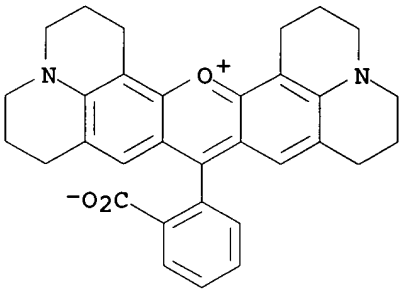
IT 691868-32-3

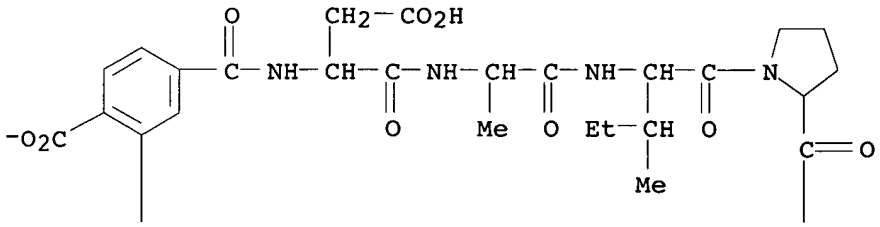
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (fluorescent peptide substrates for the detection of enzyme activity in biol. samples)

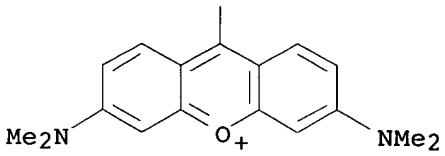
RN 691868-32-3 CAPLUS

CN L-Cysteine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

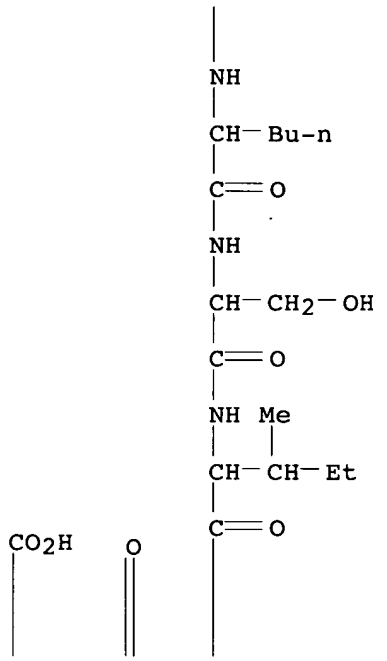
PAGE 1-A



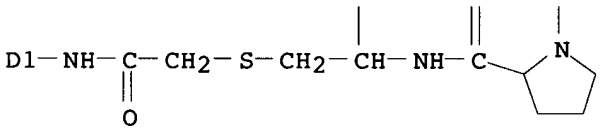




PAGE 2-A



PAGE 3-A



L4 ANSWER 11 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:59671 CAPLUS
DN 140:142193
TI Highly homogeneous molecular markers for electrophoresis
IN Tadayoni-Rebek, Mitra; Amshey, Joseph W.; Rooney, Regina
PA Invitrogen Corporation, USA
SO U.S. Pat. Appl. Publ., 33 pp., Cont.-in-part of U.S. Ser. No. 927,436.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004014082	A1	20040122	US 2003-369117	20030220
	US 2002155455	A1	20021024	US 2001-927436	20010813
PRAI	US 2000-224345P	P	20000811		
	US 2001-927436	A2	20010813		
	US 2002-357634P	P	20020220		

AB The invention relates to marker mols. for identifying phys. properties of mol. species separated by the use of electrophoretic systems. The invention further relates to methods for preparing and using marker mols. A peptide having the following amino acid sequence: Cys-Leu-Lys(TMR)-Asp-Ala-Leu-Asp-Ala-Leu-Asp-Ala-Leu-Lys(TMR)-Asp-Ala-amide, was prepared by highly optimized stepwise solid phase peptide synthesis. This peptide was ligated to recombinant maltose-binding protein-95aa, purified and characterized by

SDS gel electrophoresis.

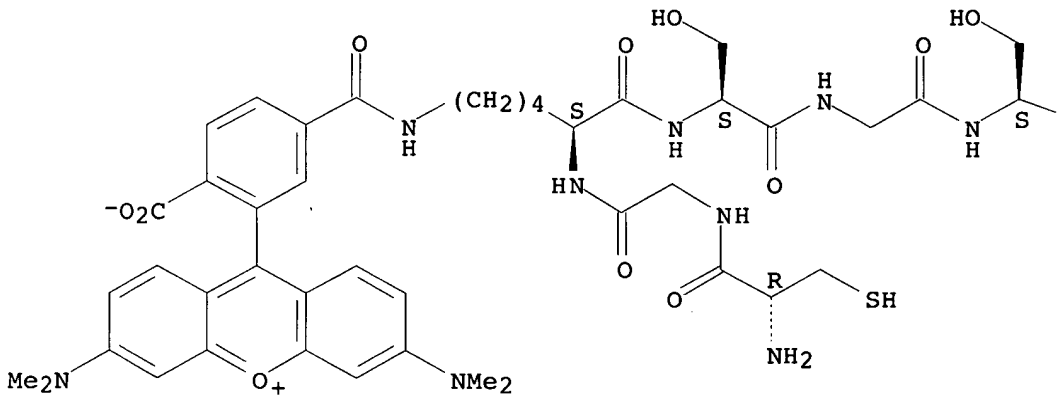
IT 646991-34-6
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(marker mol. containing; highly homogeneous mol. markers for electrophoresis)

RN 646991-34-6 CAPLUS

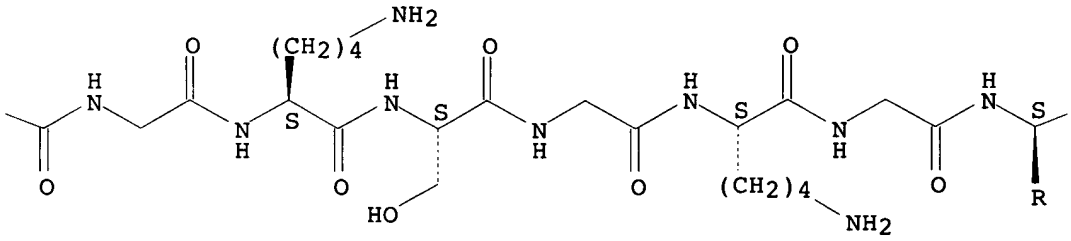
CN Glycinamide, L-cysteinylglycyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-lysyl-L-serylglycyl-L-serylglycyl-L-lysyl-L-serylglycyl-L-lysylglycyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-lysyl-L-seryl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

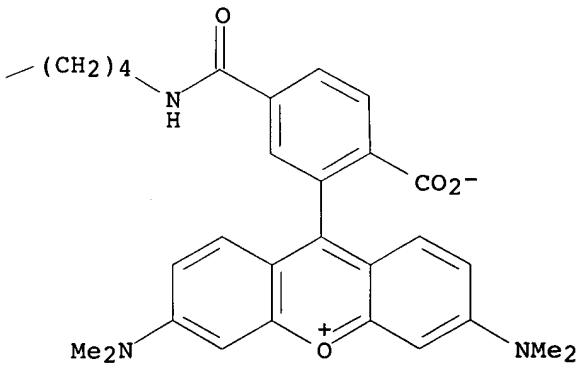
PAGE 1-A

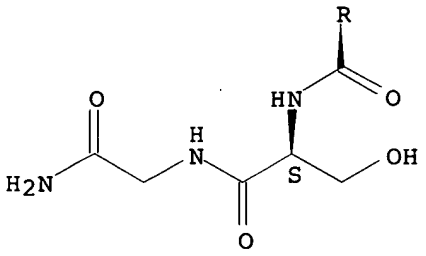


PAGE 1-B



PAGE 1-C

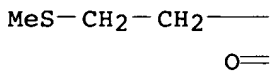




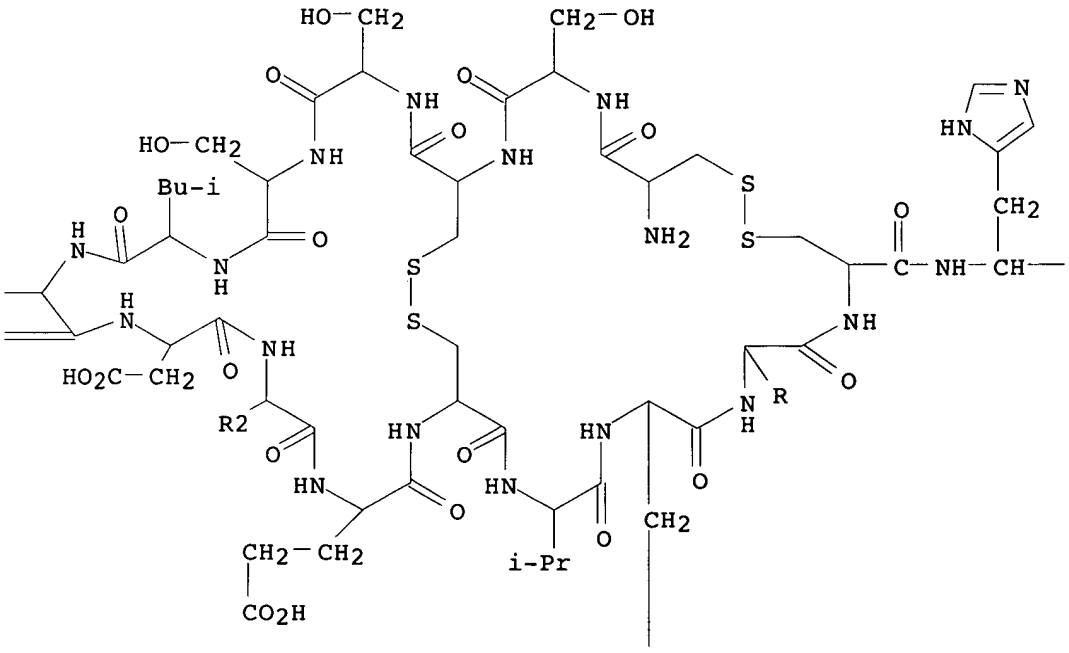
L4 ANSWER 12 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:495720 CAPLUS
DN 141:185209
TI Endothelin Receptor in Virus-Like Particles: Ligand Binding Observed by Fluorescence Fluctuation Spectroscopy
AU Zemanova, Lenka; Schenk, Andreas; Hunt, Nicholas; Nienhaus, G. Ulrich; Heilker, Ralf
CS Department of Biophysics, University of Ulm, Ulm, D-89081, Germany
SO Biochemistry (2004), 43(28), 9021-9028
CODEN: BICHAW; ISSN: 0006-2960
PB American Chemical Society
DT Journal
LA English
AB The functional anal. of transmembrane receptor proteins is frequently hampered by the difficulty to produce sufficiently homogeneous receptor prepns. that preserve the physiol. biomembrane integration of the receptor protein. To improve the receptor protein d. in the lipid bilayer and to maintain the physiol. lipid-protein environment, a novel method has been established that enables the selective integration of transmembrane receptors into a virus-like particle (VLiP). Here we have studied the binding of tetramethylrhodamine-labeled endothelin-1 (TMR-ET-1) to VLiP-integrated endothelin A receptor (ETAR) by fluorescence fluctuation spectroscopy. The concentration of TMR-ET-1 was determined by fluorescence correlation spectroscopy (FCS). These measurements also confirmed that the free ligand is monomeric in solution in our expts. Fluorescence intensity distribution anal. (FIDA) was used to quantify the fraction of ligands bound to ETARs in the VLiPs. For the interaction between ET-1 and VLiP-integrated ETARs, KD values of 0.5 nM and 0.3 nM were determined from ligand and receptor titration expts., resp. For comparison, a FIDA anal. was also carried out with ETARs in membrane fragments derived from an ETAR-overexpressing mammalian cell line, which yielded a similar KD of 0.2 nM. In addition, we examined the binding competition of a set of reference compds.
to VLiP-ETARs in the presence of ET-1 and obtained Ki values similar to those reported in the literature. Our results demonstrate that integration into VLiPs does not change the binding properties of the ETARs. FIDA anal. of VLiP-integrated receptors shows great promise for highly miniaturized and fast compound testing in the pharmaceutical industry.
IT 740865-80-9
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(endothelin receptor in virus-like particles and ligand binding observed by fluorescence fluctuation spectroscopy in relation to drug discovery)
RN 740865-80-9 CAPLUS
CN L-Tryptophan, L-cysteinyl-L-seryl-L-cysteinyl-L-seryl-L-seryl-L-leucyl-L-methionyl-L-α-aspartyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-lysyl-L-α-glutamyl-L-cysteinyl-L-valyl-L-tyrosyl-

L-phenylalanyl-L-cysteinyl-L-histidyl-L-leucyl-L-α-aspartyl-L-isoleucyl-L-isoleucyl-, inner salt, cyclic (1→15),(3→11)-bis(disulfide) (9CI) (CA INDEX NAME)

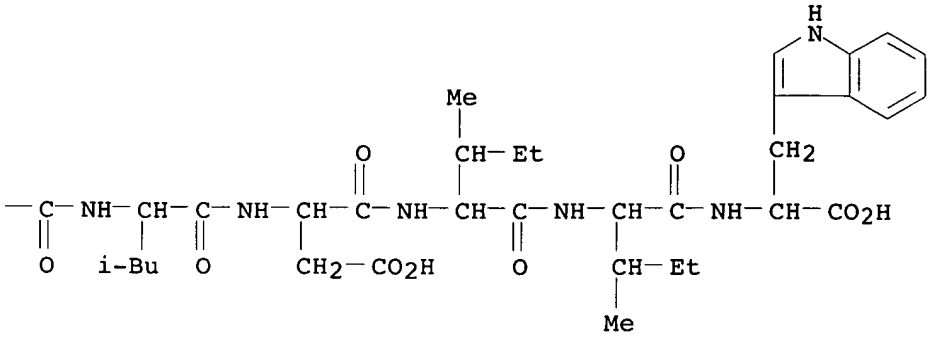
PAGE 1-A



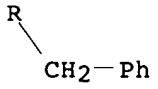
PAGE 1-B



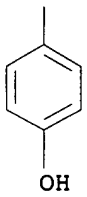
PAGE 1-C



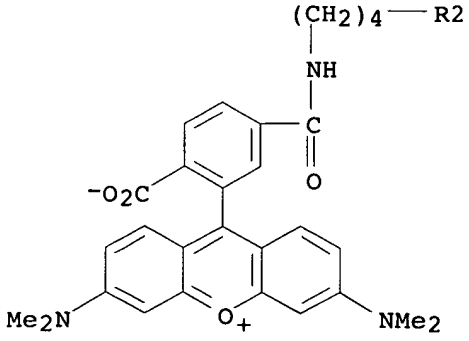
PAGE 2-A



PAGE 2-B

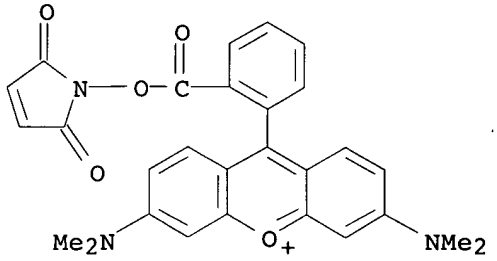


PAGE 3-A



RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:868446 CAPLUS
DN 142:293962
TI Single-molecule imaging of the dynamic interactions between macromolecules
AU Yokota, Hiroaki; Kaseda, Kuniyoshi; Matsuura, Hideyuki; Arai, Yushiyuki; Iwane, Atsuko; Ishii, Yoshiharu; Kodama, Takao; Yanagida, Toshio
CS Single Molecule Processes Project, ICORP JST, Osaka, 562-0035, Japan
SO Journal of Nanoscience and Nanotechnology (2004), 4(6), 616-621
CODEN: JNNOAR; ISSN: 1533-4880
PB American Scientific Publishers
DT Journal
LA English
AB In recent years, the development of single-mol. detection techniques has allowed the dynamic properties of biomols., which are normally obscured in conventional ensemble measurements, to be measured. One of these single-mol. detection techniques allows the measurement of dissociation and association events of individual mols. to be measured. This technique is based on the unique premise that the mobility between mols. that are bound and the mobility between those that are free in solution are different. The binding of ATP at the beginning and its dissociation at the end of the hydrolysis reaction were detected at the single-mol. level in real time. In this study, we extended this technique to image the dynamic interactions between large biomols. (protein/protein and protein/polysaccharide). The binding and dissociation of fluorescently labeled macromols. to partner mols. fixed on a glass surface were visualized by total internal reflection fluorescence microscopy. The dynamic interactions between the proteins in two energy conversion systems, i.e., signaling proteins and enzyme mols. moving on dextran, have been measured. In these systems, the dynamic interactions were sensitive to the factors determining the chemical reactions. Thus, the dynamic interactions monitored in the single-mol. measurements provided useful information to further the understanding of the underlying mechanisms of energy conversion systems.
IT 117635-09-3
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(single-mol. imaging of dynamic interactions between macromols.)
RN 117635-09-3 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)oxy]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (9CI) (CA INDEX NAME)



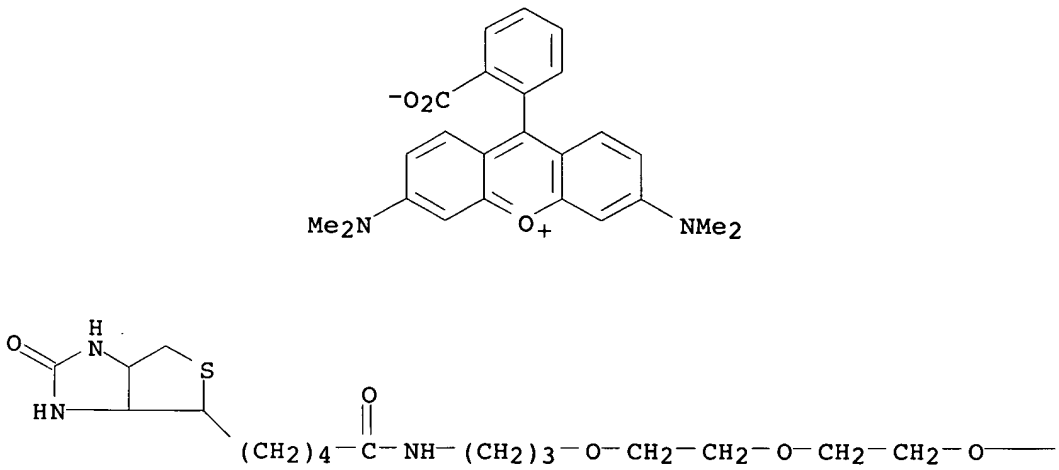
● Cl⁻

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

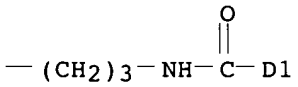
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:61485 CAPLUS
DN 141:145461
TI Design of attachment type of drug delivery system by complex formation of avidin with biotinyl drug model and biotinyl saccharide
AU Ouchi, Tatsuro; Yamabe, Etsuro; Hara, Kei; Hirai, Mikiko; Ohya, Yuichi
CS Faculty of Engineering, Department of Applied Chemistry, Kansai University, Osaka, Suita, 564-8680, Japan
SO Journal of Controlled Release (2004), 94(2-3), 281-291
CODEN: JCREEC; ISSN: 0168-3659
PB Elsevier
DT Journal
LA English
OS CASREACT 141:145461
AB Recent studies have focused on the active targeting of drug delivery by combining a homing device and antitumor drug. For this purpose, synthesis of a well-designed vehicle (such as polymer/drug conjugates or nanoparticles) carrying a drug and a homing device requires many steps. We propose a new type of drug delivery system (DDS) by formation of a complex containing avidin (Av) plus biotinyl drug with a biotinyl homing device, which easily accommodates the combination of various drugs and homing devices. The targetable drug complex can be prepared by selecting an appropriate biotinyl drug derivative and a biotinyl homing device and mixing them with avidin. Fluorescent dye with 5-(and-6)-carboxytetramethylrhodamine (TAMRA) was used as a drug model, and galactose (Gal) recognized by liver parenchymal cells was used as a homing device. TAMRA and galactose were attached to biotin (Bio) through a triethyleneglycol (TEG) spacer group to give Bio-TEG-TAMRA conjugate and Bio-TEG-Gal conjugate, resp. Confocal laser scanning microscopic studies suggest that the complexes prepared by mixing Bio-TEG-Gal conjugate and fluorescein isothiocyanate (FITC)-labeled Av (feed molar ratio 4:1), and mixing Bio-TEG-Gal conjugate, Bio-TEG-TAMRA conjugate and FITC-labeled Av are internalized into the hepatoma cells through a receptor-mediated endocytosis mechanism.
IT 727701-99-7DP, complex with avidin
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(design of attachment type of drug delivery system by complex formation of avidin with biotinyl drug model and biotinyl saccharide)
RN 727701-99-7 CAPLUS
CN Xanthylium, 9-[2-carboxy-4(or 5)-[21-[(3aS,4S,6aR)hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1,17-dioxo-6,9,12-trioxa-2,16-diazaheneicos-1-yl]phenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

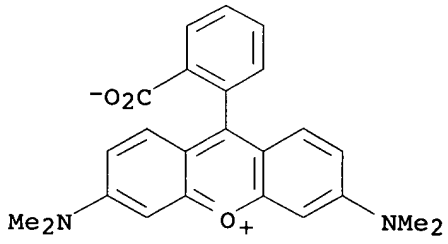


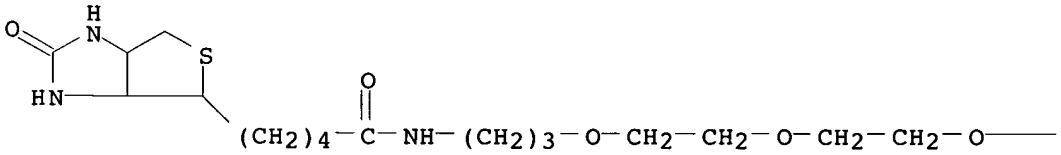
IT 727701-99-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(design of attachment type of drug delivery system by complex formation of avidin with biotinyl drug model and biotinyl saccharide)

RN 727701-99-7 CAPLUS

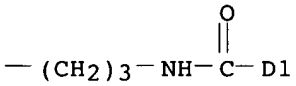
CN Xanthylium, 9-[2-carboxy-4(or 5)-[21-[(3aS,4S,6aR)hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1,17-dioxo-6,9,12-trioxa-2,16-diazaheneicos-1-yl]phenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 1-B



RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:376773 CAPLUS
DN 141:153294
TI Flex test: a fluorescent dextran test for UF membrane characterization
AU Mulherkar, Poonam; van Reis, Robert
CS Separation Technology Group, Recovery Sciences, Genentech Inc., South San Francisco, CA, 94080, USA
SO Journal of Membrane Science (2004), 236(1-2), 171-182
CODEN: JMESDO; ISSN: 0376-7388
PB Elsevier Science B.V.
DT Journal
LA English
AB Dextran curves are commonly used to measure the sieving characteristics of UF membranes. The use of refractive index limits the sensitivity of the dextran test, making it difficult to accurately measure sieving lower than 0.01. However, most UF processes require the product sieving to be less than 0.001 to avoid yield losses. Thus there exists a gap between dextran characterization of UF membranes and UF process requirement. In this work

a new method called the Flex test has been developed which uses neutral and charged fluorescent dextrans to characterize both neutral and charged UF membranes. Data demonstrating the utility of this method have been generated with 100, 300 and 1000 kDa, neutral and charged composite regenerated cellulose membranes. It has been shown that pore size of neutral membranes can be characterized using neutral fluorescent dextrans to accurately measure sieving as low as 0.001. On the other hand, both pore size and charge of charged membranes can be characterized using neutral dextrans and charged fluorescent dextrans. Neutral dextrans capture the effect of membrane pore size alone on sieving, and charged fluorescent dextrans capture the combined effect of membrane pore size and charge on sieving. This characterization of both membrane pore size and charge is important for all charged membrane applications. A tool called the Flex test tables has also been proposed to succinctly transfer this characterization information from membrane manufacturer to membrane user. This characterization method is valuable for all UF and HPTFF applications, where membrane pore size and charge affect separation performance.

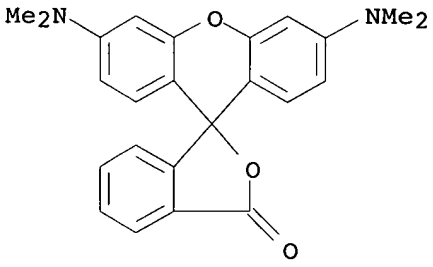
IT 730977-54-5
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(fluorescent dextran test for UF membrane characterization)

RN 730977-54-5 CAPLUS

CN Dextran, [3',6'-bis(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]carbamothioate, 2-(diethylamino)ethyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 730977-53-4
CMF C25 H23 N3 O4 S
CCI IDS



D1—NH—COSH

CM 2

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 100-37-8
CMF C6 H15 N O

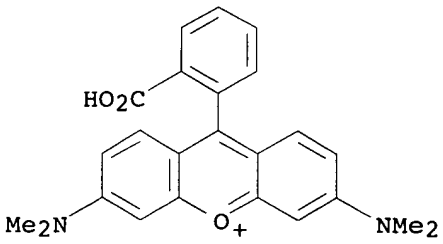
$Et_2N-CH_2-CH_2-OH$

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:982082 CAPLUS
DN 141:273859
TI Electroporation loading and photoactivation of caged InsP3: tools to investigate the relation between cellular ATP release in response to intracellular InsP3 elevation
AU Braet, Katleen; Mabilde, Cyriel; Cabooter, Liesbet; Rapp, Gert; Leybaert, Luc
CS Physiology and Pathophysiology, Ghent University, Ghent, B-9000, Belg.
SO Journal of Neuroscience Methods (2004), 132(1), 81-89
CODEN: JNMEDT; ISSN: 0165-0270
PB Elsevier Science B.V.
DT Journal
LA English
AB Photolytic liberation of InsP3 in single cells triggers cell-to-cell propagating calcium changes that are communicated by a gap junctional and a paracrine purinergic pathway involving InsP3-triggered ATP release. We investigated the relation between the InsP3 stimulus and the resulting ATP release in ECV304 cells using UV photolysis of caged compds. and bioluminescent ATP measurements. Careful consideration of all steps, starting from caged InsP3 loading into the cells by electroporation, up to photoliberation upon UV exposure, allowed to derive a dose-response relation that revealed a first part with a flattening ATP release response in the below 10 μM InsP3 concentration range and a second phase of steeply increasing ATP release in response to above 10 μM InsP3 stimulation. ATP release triggered by below 10 μM InsP3 concns. attained a level in the order of 30% above baseline ATP release, while the steeply increasing response to high InsP3 concns. attained values in the order of 150% above baseline. Our data indicate the involvement of low affinity InsP3 receptor sites in the pathway leading to triggered ATP release, with activation of these receptors causing the release of 1-2% of the total cellular ATP pool.
IT 137455-29-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(electroporation loading and photoactivation of caged InsP3 as tools to investigate the relation between cellular ATP release in response to intracellular InsP3 elevation)
RN 137455-29-9 CAPLUS
CN Dextran, compd. with 9-(2-carboxyphenyl)-3,6-bis(dimethylamino)xanthylium chloride (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70281-37-7
CMF C24 H23 N2 O3 . Cl



● Cl-

CM 2

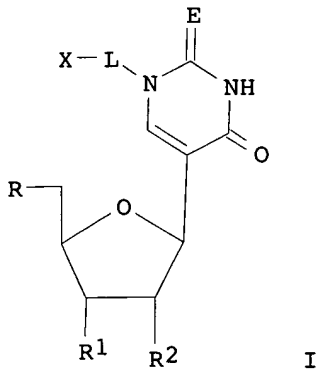
CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:633723 CAPLUS
DN 139:180303
TI Preparation of base-labeled nucleosides and nucleotides and their incorporation into oligodeoxyribonucleotides
IN Cruickshank, Kenneth; Ling, Ren
PA Pierce Milwaukee LLC, USA
SO PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003066645	A2	20030814	WO 2003-US3193	20030204
	WO 2003066645	A3	20040325		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003217311	A1	20030902	AU 2003-217311	20030204
PRAI	US 2002-354569P	P	20020206		
	WO 2003-US3193	W	20030204		

OS MARPAT 139:180303
GI



I

AB Base-labeled nucleosides and nucleotides I in which R = OH, monophosphate, diphosphate, triphosphate, R1 and R2 are independently = OH, H, L is a linker comprised of A-B-C, wherein A = -(CH2)n, wherein n = 1-6 or -(CH = CH)-, B = -C(O)NH- or -C(O)NR3-, wherein R3 is a straight chain or

branched, substituted or unsubstituted, C1-C8 alkyl, C = -(CH2)nY, wherein n = 1-6, and Y = -NH2, -SH, -OH, -C(O)OH, or -OP(O)2OH, X is a detectable label, and E = O, S, or NH. Thus, N1-substituted-2'-deoxypseudouridine-5'-triphosphate to 5-carboxytetramethylrhodamine NHS ester was prepared and incorporated into oligo-dT15 and oligo-dT16.

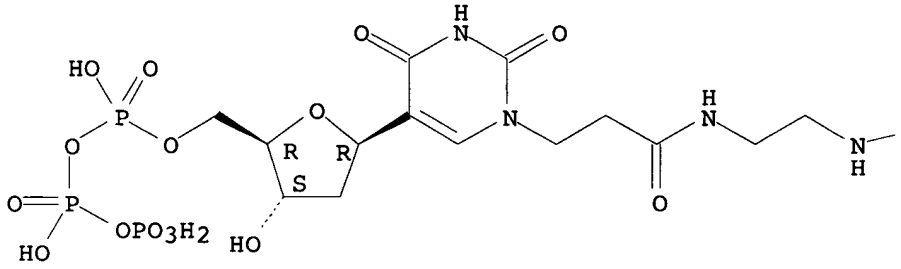
IT 577719-26-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of base-labeled nucleosides and nucleotides and their incorporation into oligodeoxyribonucleotides)

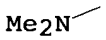
RN 577719-26-7 CAPLUS

CN Xanthylium, 9-[2-carboxy-5-[[[2-[[3-[5-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl]-1-oxopropyl]amino]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

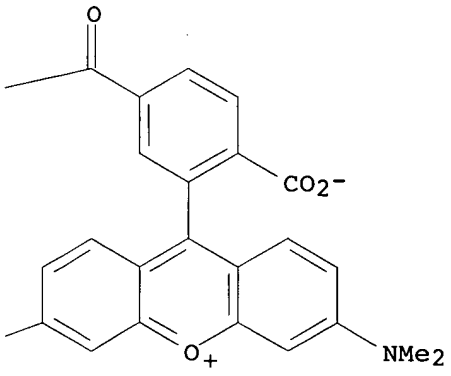
Absolute stereochemistry.

PAGE 1-A





PAGE 1-B



L4 ANSWER 18 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:714474 CAPLUS

DN 139:391808

TI Synthesis and Energy Transfer Efficiency of FRET Terminators Derived from

Different Linkers

AU Kumar, Shiv; Nampalli, Satyam; Finn, Patrick J.; Sudhakar Rao, T.; Chen, Chung-Yuan; Flick, Parke K.; Fuller, Carl W.

CS Amersham Biosciences, Piscataway, NJ, 08855, USA

SO Nucleosides, Nucleotides & Nucleic Acids (2003), 22(5-8), 1595-1598
CODEN: NNNAFY; ISSN: 1525-7770

PB Marcel Dekker, Inc.

DT Journal

LA English

AB A number of different energy transfer dye labeled-cassettes were synthesized using amino-acid-based trifunctional linkers and coupled to the propargylamino-substituted dideoxynucleoside-5'-triphosphates (ddNTPs). These terminators were evaluated for their energy transfer efficiency and DNA sequencing potential using thermostable DNA polymerase.

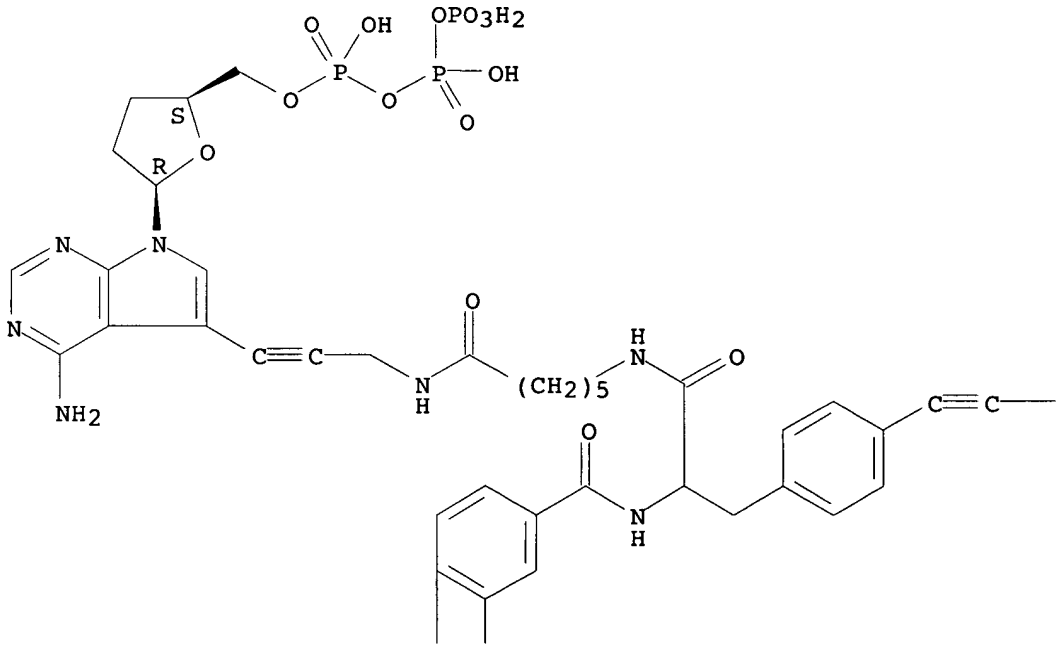
IT 625456-53-3P
RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and energy transfer efficiency of FRET terminators derived from different linkers)

RN 625456-53-3 CAPLUS

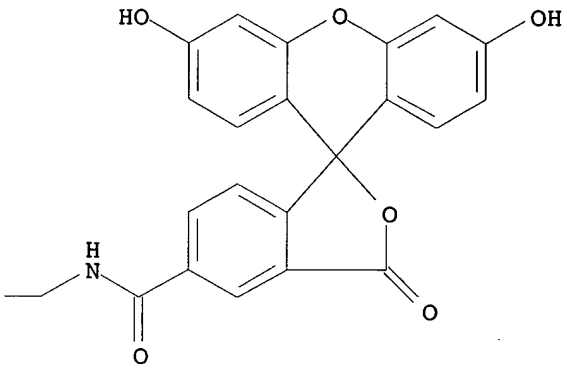
CN Xanthylium, 9-[4-[[[2-[[6-[[3-[4-amino-7-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahept-1-yl)-2-furanyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propynyl]amino]-6-oxohexyl]amino]-1-[[4-[3-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propynyl]phenyl]methyl]-2-oxoethyl]amino]carbonyl]-2-carboxyphenyl]-3,6-bis(dimethylamino)-2,7-dimethyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

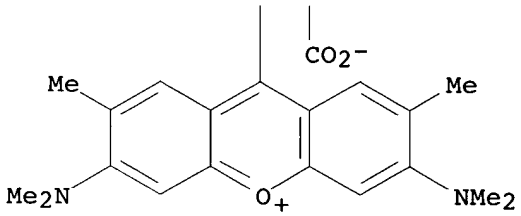
PAGE 1-A



PAGE 1-B



PAGE 2-A



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:829485 CAPLUS
DN 140:111672
TI Synthesis of Radiometal-Labeled and Fluorescent Cell-Permeating Peptide-PNA Conjugates for Targeting the bcl-2 Proto-oncogene
AU Gallazzi, Fabio; Wang, Yi; Jia, Fang; Shenoy, Nalini; Landon, Linda A.; Hannink, Mark; Lever, Susan Z.; Lewis, Michael R.
CS Molecular Biology Program, Department of Veterinary Medicine and Surgery, Department of Chemistry, Department of Biochemistry, University of Missouri- Columbia, Columbia, MO, 65211, USA
SO Bioconjugate Chemistry (2003), 14(6), 1083-1095
CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English
OS CASREACT 140:111672
AB The B-cell lymphoma/leukemia-2 (bcl-2) proto-oncogene has been associated with the transformation of benign lesions to malignancy, disease progression, poor prognosis, reduced survival, and development of resistance to radiation and chemotherapy in many types of cancer. The objective of this work was to synthesize an antisense peptide nucleic acid (PNA) complementary to the first six codons of the bcl-2 open reading frame, conjugated to a membrane-permeating peptide for intracellular delivery, and modified with a bifunctional chelating agent for targeting imaging and therapeutic radiometals to tumors overexpressing bcl-2. Four peptide-PNA constructs were synthesized by a combination of manual and automated stepwise elongation techniques, including bcl-2 antisense conjugates and nonsense conjugates with no complementarity to any known

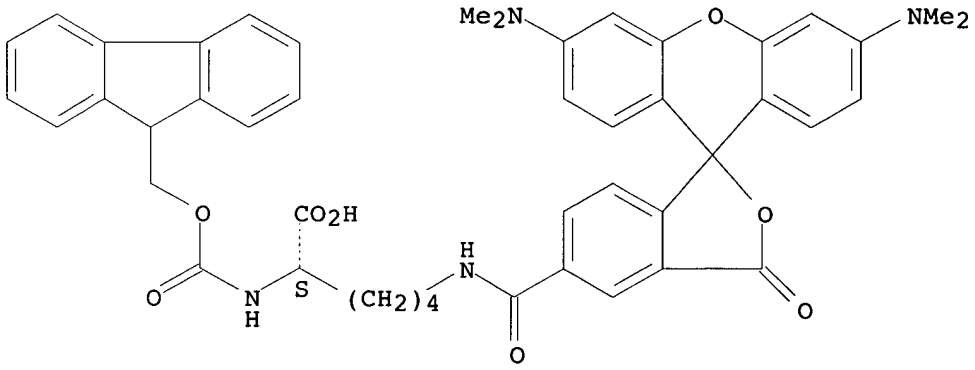
mammalian gene or DNA sequence. The PNA sequences were synthesized manually by solid-phase 9-fluorenylmethoxycarbonyl (Fmoc) techniques. Then a fully protected lysine monomer, modified with 1,4,7,10-tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid (DOTA) for radiometal chelation, was coupled manually to each PNA sequence. Synthesis of the DOTA-PNA conjugates was followed by automated elongation with a peptide sequence (PTD-4-glycine, PTD-4-G), known to mediate cellular internalization of impermeable effector mols., or its retro-inverso analog (ri-PTD-4-G). Preparation of the four conjugates required an innovative synthetic strategy, using mild acid conditions to generate hydrophobic, partially deprotected intermediates. These intermediates were purified by semipreparative reversed-phase HPLC and completely deprotected to yield pure peptide-PNA conjugates in 6% to 9% overall yield. Using modifications of this synthetic strategy, the ri-PTD-4-G conjugate of bcl-2 antisense PNA was prepared using a lysine derivative of tetramethylrhodamine (TMR) for fluorescence microscopy. Plasma stability studies showed that 111In-DOTA-labeled ri-PTD-4-G-anti-bcl-2 PNA was stable for 168 h at 37 °C, unlike the conjugate containing the parent peptide sequence. Scanning confocal fluorescence microscopy of TMR-labeled ri-PTD-4-G-anti-bcl-2 PNA in Raji lymphoma cells demonstrated that the retro-inverso peptide was active in membrane permeation and mediated cellular internalization of the antisense PNA into the cytoplasm, where high concns. of bcl-2 mRNA are expected to be present.

IT 635732-47-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of radiometal-labeled and fluorescent cell-permeating peptide-PNA conjugates for targeting the bcl-2 proto-oncogene)

RN 635732-47-7 CAPLUS

CN L-Lysine, N6-[[3',6'-bis(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl]carbonyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:331560 CAPLUS
DN 139:69512
TI Extending the Applicability of Carboxyfluorescein in Solid-Phase Synthesis
AU Fischer, Rainer; Mader, Oliver; Jung, Guenther; Brock, Roland
CS Institute for Cell Biology, University of Tuebingen, Tuebingen, 72076, Germany
SO Bioconjugate Chemistry (2003), 14(3), 653-660
CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English

OS CASREACT 139:69512

AB Optimized coupling protocols are presented for the efficient and automated generation of carboxyfluorescein-labeled peptides. Side products, generated when applying earlier protocols for the in-situ activation of carboxyfluorescein, were eliminated by a simple procedure, yielding highly pure fluorescent peptides and minimizing post-synthesis workup. For the cost-efficient labeling of large compound collections, coupling protocols were developed reducing the amount of coupling reagent and fluorophore. To enable further chemical derivatization of carboxyfluorescein-labeled peptides in solid-phase synthesis, the on-resin introduction of the trityl group was devised as a protecting group strategy for carboxyfluorescein. This protecting group strategy was exploited for the synthesis of peptides labeled with two different fluorescent dyes, essential tools for bioanal. applications based on fluorescence resonance energy transfer (FRET). Tritylation and optimized labeling conditions led to the development of a fluorescein-preloaded resin for the automated synthesis of fluorescein-labeled compound collections with uniform labeling yields.

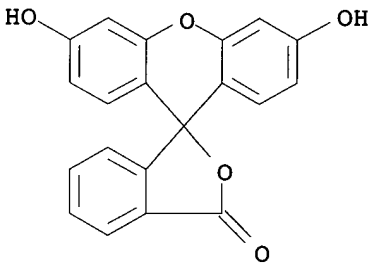
IT 551929-35-2P

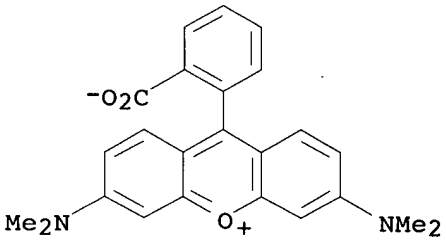
RL: SPN (Synthetic preparation); PREP (Preparation)
(solid-phase synthesis of fluorescein-labeled peptides using Rink amide resin and trityl protecting groups)

RN 551929-35-2 CAPLUS

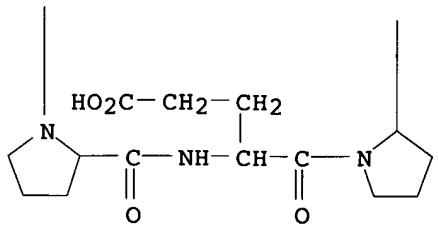
CN L-Lysinamide, N-[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]carbonyl]-L-alanyl-L-prolyl-L-prolyl-L-prolyl-L-α-glutamyl-L-prolyl-L-prolyl-L-prolyl-4-(aminomethyl)benzoyl-N6-[3(or 4)-[3,6-bis(dimethylamino)xanthylium-9-yl]-4(or 3)-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A



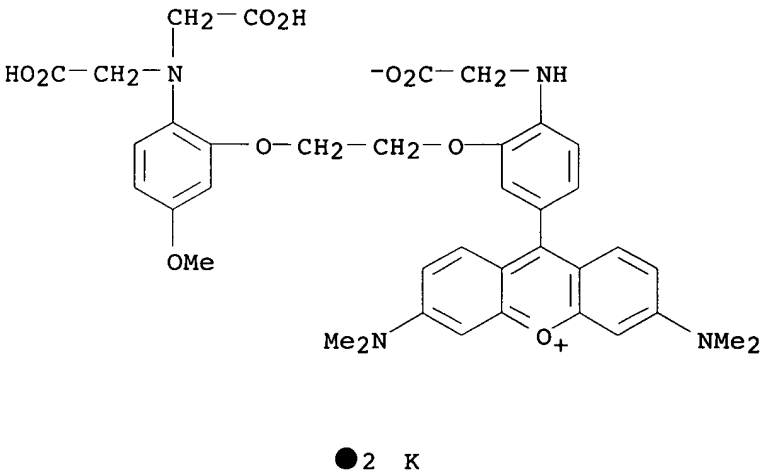


* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *



RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:584848 CAPLUS
DN 140:317539
TI A new mitochondrial fluorescent zinc sensor
AU Sensi, Stefano L.; Ton-That, Dien; Weiss, John H.; Rothe, Anca; Gee, Kyle R.
CS Department of Neurology, University of California, Irvine, CA, 92697-4292, USA
SO Cell Calcium (2003), 34(3), 281-284
CODEN: CECADV; ISSN: 0143-4160
PB Elsevier Science Ltd.
DT Journal
LA English
AB A novel cationic fluorescent zinc (Zn2+) indicator (RhodZin-3) with nanomolar affinity for Zn2+ has been synthesized. RhodZin-3 exhibits large pH-independent fluorescence increases in the orange region of the visible wavelength spectrum with increasing zinc concns., and no sensitivity to physiol. relevant Ca2+ concns. Expts. in neuronal cell cultures show that RhodZin-3 effectively localizes into mitochondria and detects changes of intramitochondrial free Zn2+ ([Zn2+]m).
IT 677716-65-3, RhodZin 3
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(pH-independent fluorescent indicator for zinc determination in mitochondria)
RN 677716-65-3 CAPLUS
CN Xanthylium, 9-[3-[2-[2-[bis(carboxymethyl)amino]-5-methoxyphenoxy]ethoxy]-4-[(carboxymethyl)amino]phenyl]-3,6-bis(dimethylamino)-, inner salt, dipotassium salt (9CI) (CA INDEX NAME)



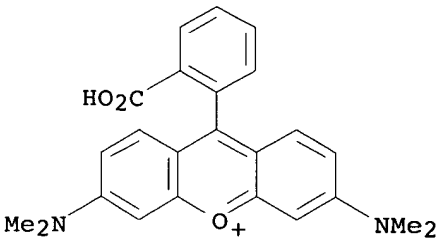
●2 K

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:598161 CAPLUS
DN 140:402564
TI Retrograde transport of sodium selenite and intracellular injection of micro-ruby: a combined method to describe the morphology of zinc-rich neurons
AU Miro-Bernie, N.; Sancho-Bielsa, F. J.; Lopez-Garcia, C.; Perez-Clausell, J.
CS Departament de Biologia Cel·lular, Universitat de Barcelona, Barcelona, 08028, Spain
SO Journal of Neuroscience Methods (2003), 127(2), 199-209
CODEN: JNMEDT; ISSN: 0165-0270
PB Elsevier Science B.V.
DT Journal
LA English
AB Zinc is found in synaptic vesicles in a large number of glutamatergic systems. Its involvement in neurotransmission and neurol. disorders has been suggested. There are methods for tracing these circuits, but they do not fill the dendritic tree. In this study, extracellular selenite injections in vivo were combined with intracellular injection of fluorochromes in fixed tissue to reveal the morphol. of these zinc-rich neurons. I.p. and intracerebral injections of sodium selenite alone or intracerebral injections of selenite combined with bisbenzimide were made in the visual cortex of the rat in order to locate the somata of zinc-rich neurons. After 24 h of retrograde transport, animals were killed and fluorescent markers were injected intracellularly into fixed slices to show neuronal morphol.: (a) Lucifer Yellow (LY) followed by biocytin, (b) LY coupled to biocytin or (c) micro-ruby (MR) (dextranamines bound to rhodamine and biotin). Double-labeled somata (selenite+fluorochrome) were plotted. Details of the dendritic morphol. were then revealed by incubation in avidin-biotin complex and development in 3,3'-diaminobenzidine and H2O2. Camera lucida drawings showed that zinc-rich neurons in layers II-III involved in cortico-cortical visual projections were typical pyramidal neurons. This technique is noteworthy for its anal. of the morphol. (and connections) of zinc-rich neurons.
IT 688329-17-1, Micro-ruby
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(role of sodium selenite in retrograde labeling of zinc-rich neurons in visual cortex and combine with intracellular injection of biotinylated fluorochromes to show detailed morphol. of dendritic tree)
RN 688329-17-1 CAPLUS
CN Dextran, mixt. with 9-(2-carboxyphenyl)-3,6-bis(dimethylamino)xanthylium chloride and (3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 70281-37-7
CMF C24 H23 N2 O3 . Cl



CM 2

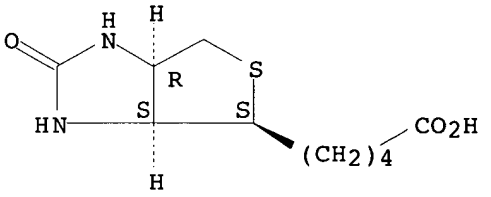
CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 58-85-5
CMF C10 H16 N2 O3 S

Absolute stereochemistry. Rotation (+).



RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:832940 CAPLUS
DN 137:347515
TI DNA polymerase mutants with increase activity for charge-switch nucleotides
IN Williams, John G. K.
PA Li-Cor, Inc., USA
SO PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002086088	A2	20021031	WO 2002-US13026	20020424
	WO 2002086088	A3	20030227		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,

UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004259082 A1 20041223 US 2002-131998 20020424

PRAI US 2001-286238P P 20010424

US 2001-314746P P 20010824

AB This invention provides DNA polymerases with mutations in the charge-switch nucleotide interaction region that increase activity for charge-switch nucleotides. Such polymerases can be generated by introducing mutations in specific residues which are identified as being in the appropriate region through structural models, by homol. to polymerases with known structures, or exptl. anal. In some embodiments, the mutant DNA polymerases have addnl. mutations that decrease activity for non-charge-switch nucleotides and mutations that decrease exonuclease activity. In another aspect, the invention provides methods of sequencing a target nucleic acid with the above described mutated DNA polymerases. In yet another aspect, the invention provides methods of generating polypeptides having charge-switch nucleotide polymerase activity by introducing "random" mutations and selecting those mutated polypeptides that encode polypeptides having charge-switch nucleotide activity. The term "charge-switch nucleotide", "NP probe", or "γ-dNTP" as used herein refers to a phosphate-labeled nucleotide (e.g., γ-NP-Dye) that upon release or cleavage of a detectable moiety (e.g., PPi-Dye) has a different net charge associated with the cleavage product compared to the intact nucleotide probe (e.g., γ-NP-Dye). DNA polymerases that efficiently incorporate "charge-switched" γ-phosphate-labeled dNTPs for single-mol. DNA sequencing have been developed. A variety of dNTPs were synthesized to provide different charge-switch configurations. Polymerase variants were selected for utilization of the charge-switch nucleotides using the described directed evolution methods. The effect of different nucleotide chemical is investigated by constructing dNTPs with various structures. For example, four dNTPs (ACGT) were labeled on the γ-phosphate with dyes of differing structure and charge for use in the polymerase selections. The nucleobase moieties were either unlabeled or tagged with elec. charged groups in different charge-switching configurations. Some configurations maximize the charge difference between γ-dNTP and PP-F, which is good for electrosorting microfluidics. Both aliphatic and peptide linkers were used to connect the dyes to the γ-P. The linkers have different nos. of charged groups to compensate the different dye charges as required for charge switching. Directional coupling of peptide linkers to the nucleotide is accomplished using a peptidase to deprotect the N-terminus of the linker after it is coupled to the γ-P.

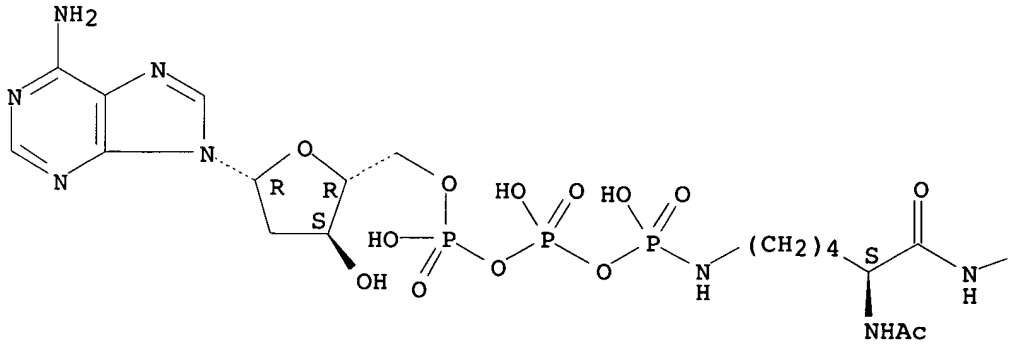
IT 474093-30-6
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (charge-switched nucleotide; DNA polymerase mutants with increase activity for charge-switch nucleotides)

RN 474093-30-6 CAPLUS

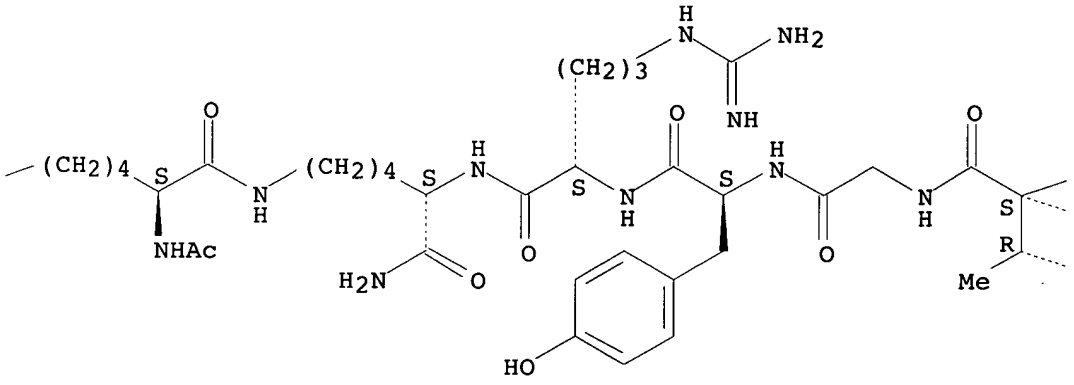
CN L-Lysinamide, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-serylglycyl-L-tyrosyl-L-seryl-L-arginyl-L-seryl-L-threonylglycyl-L-tyrosyl-L-arginyl-N6-[N2-acetyl-N6-[N2-acetyl-N6-[[[[(2'-deoxy-5'-adenylyl)oxy]hydroxyphosphinyl]oxy]hydroxyphosphinyl]-L-lysyl]-L-lysyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

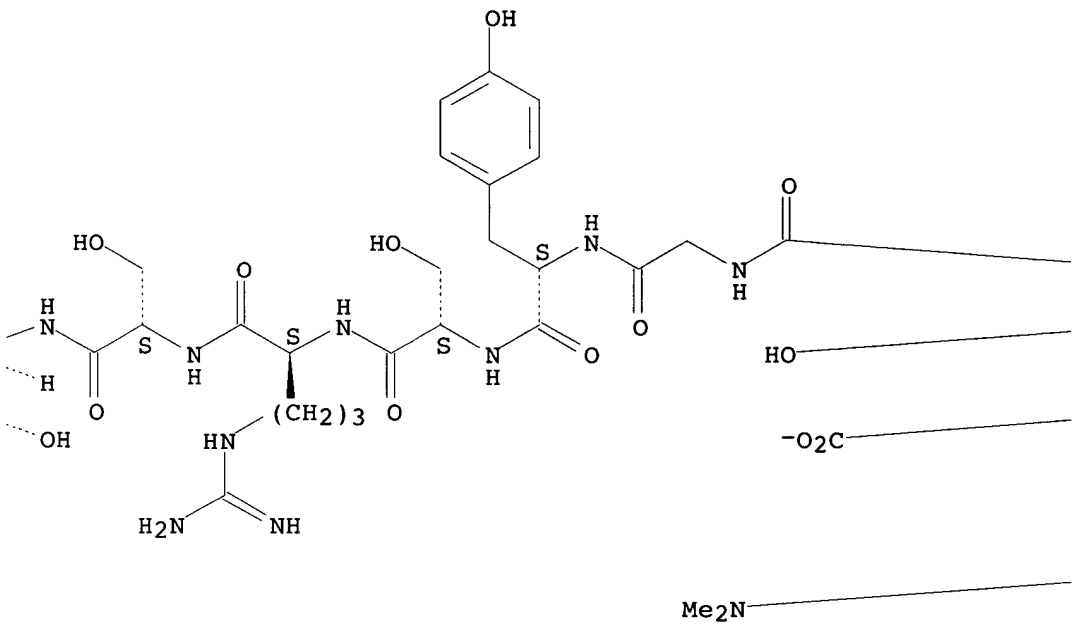
PAGE 1-A



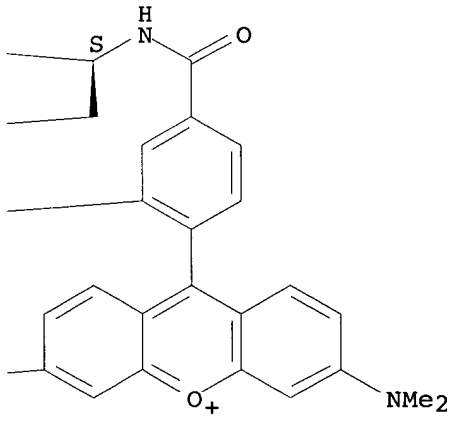
PAGE 1-B



PAGE 1-C



PAGE 1-D



L4 ANSWER 24 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:777919 CAPLUS
DN 137:280622
TI Halogenated rhodamine dye derivatives and their therapeutic applications
IN Habi, Abdelkrim; Gravel, Denis; Villeneuve, Luc; Forte, Jean-Pierre; Su, Hongsheng; Vaillancourt, Marc
PA Theratechnologies Inc., Can.
SO PCT Int. Appl., 117 pp.

CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

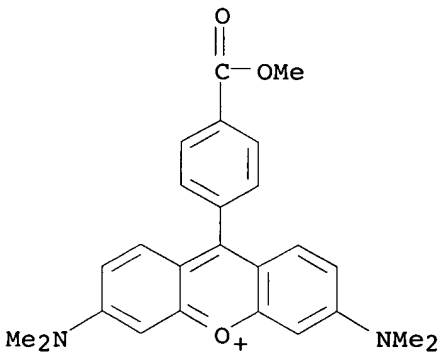
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002079183	A1	20021010	WO 2002-CA438	20020327
	WO 2002079183	C1	20030220		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2342675	AA	20021002	CA 2001-2342675	20010402
	CA 2410273	AA	20021010	CA 2002-2410273	20020327
	EP 1276734	A1	20030122	EP 2002-708105	20020327
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2002004489	A	20030401	BR 2002-4489	20020327
	JP 2004518766	T2	20040624	JP 2002-577810	20020327
	US 2003212126	A1	20031113	US 2003-297088	20030530
PRAI	CA 2001-2342675	A	20010402		
	US 2001-822223	A	20010402		
	WO 2002-CA438	W	20020327		

OS MARPAT 137:280622

AB Bromo derivs. of rhodamine 110, rhodamine B, and rhodamine 6G and other halo rhodamine derivs. are useful as intermediates and as bactericides and antiviral agents and in the treatment of immunol. disorders. In an example, rhodamine B Me ester was dihydrogenated and then brominated and oxidized and treated with acetic acid to provide the purple acetate salt of 2,7-dibromorhodamine B Me ester.

IT 467232-09-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; production of halogenated rhodamine dye derivs. and their therapeutic applications)

RN 467232-09-3 CAPLUS
CN Xanthylium, 3,6-bis(dimethylamino)-9-[4-(methoxycarbonyl)phenyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

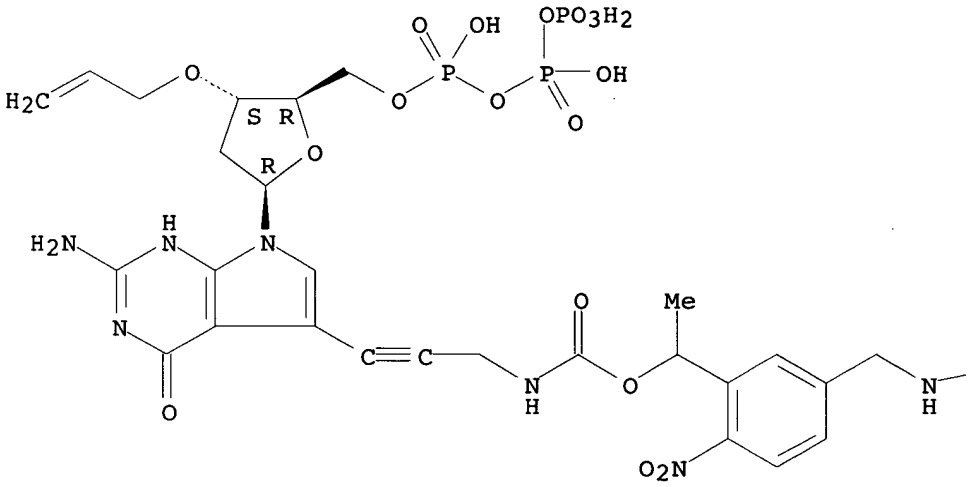
L4 ANSWER 25 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:276113 CAPLUS
DN 136:305088
TI Massively parallel nucleic acid sequencing using dye-labeled nucleotides with 3'-hydroxy groups protected by a small labile moiety and immobilized hairpin loop primers
IN Ju, Jingyue; Li, Zengmin; Edwards, John Robert; Itagaki, Yasuhiro
PA The Trustees of Columbia University In the City of New York, USA
SO PCT Int. Appl., 121 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002029003	A2	20020411	WO 2001-US31243	20011005
	WO 2002029003	A3	20020718		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2425112	AA	20020411	CA 2001-2425112	20011005
	AU 2001096645	A5	20020415	AU 2001-96645	20011005
	EP 1337541	A2	20030827	EP 2001-977533	20011005
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004510433	T2	20040408	JP 2002-532574	20011005
PRAI	US 2000-684670	A	20001006		
	US 2001-300894P	P	20010626		
	WO 2001-US31243	W	20011005		

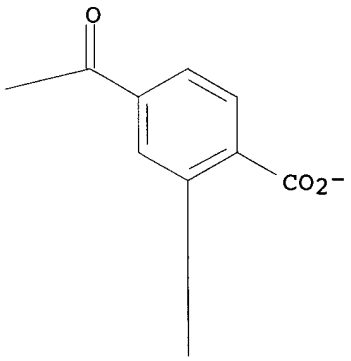
OS MARPAT 136:305088
AB This invention provides methods for attaching a nucleic acid to a solid surface and for sequencing nucleic acid by detecting the identity of each nucleotide analog after the nucleotide analog is incorporated into a growing strand of DNA in a polymerase reaction. The invention also provides nucleotide analogs which comprise unique labels, such as mass labels or fluorescent dyes, attached to the nucleotide analog through a cleavable linker, and a cleavable chemical group to cap the -OH group at the 3'-position of the deoxyribose. The method uses an array of immobilized primers in which the primers are partially double stranded and form a hairpin loop. As individual bases are incorporated by primer extension, they are identified by the nature of the reporter group. The 3'-blocking group is then removed and the next base is added to primer extension product.
IT 407581-99-1
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(DNA sequencing using; massively parallel sequencing using dye-labeled nucleotides with 3'-hydroxy groups protected by small labile moiety and immobilized hairpin loop primers)
RN 407581-99-1 CAPLUS
CN Xanthylium, 9-[5-[[[[3-[1-[[[[3-[2-amino-7-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-3-O-2-propenyl-β-D-erythro-pentofuranosyl]-4,7-dihydro-4-oxo-1H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propynyl]amino]carbonyl]oxy]ethyl]-4-nitrophenyl]methyl]amino]carbonyl]-2-carboxyphenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

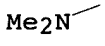
PAGE 1-A

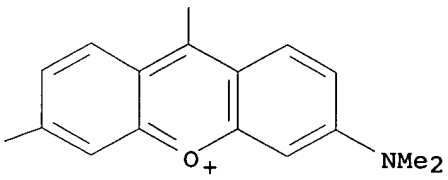


PAGE 1-B



PAGE 2-A





L4 ANSWER 26 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:276017 CAPLUS
DN 136:310186
TI Labeled peptides and processes and intermediates useful for their preparation
IN Hahn, Klaus M.; Bark, Steven J.
PA The Scripps Research Institute, USA
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002028890	A1	20020411	WO 2000-US26821	20000929
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2424158	AA	20020411	CA 2000-2424158	20000929
	AU 2000077350	A5	20020415	AU 2000-77350	20000929
	EP 1330471	A1	20030730	EP 2000-967098	20000929
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	US 2002055133	A1	20020509	US 2001-839577	20010420
	US 6951947	B2	20051004		
	CA 2415960	AA	20020131	CA 2001-2415960	20010713
	WO 2002008245	A2	20020131	WO 2001-US22194	20010713
	WO 2002008245	A3	20030130		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1301473	A2	20030416	EP 2001-954689	20010713
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2005287518	A1	20051229	US 2005-122795	20050505
PRAI	US 2000-218113P	A	20000713		
	WO 2000-US26821	W	20000929		
	US 2001-279302P	P	20010328		
	US 2001-839577	A	20010420		
	WO 2001-US22194	W	20010713		

OS MARPAT 136:310186

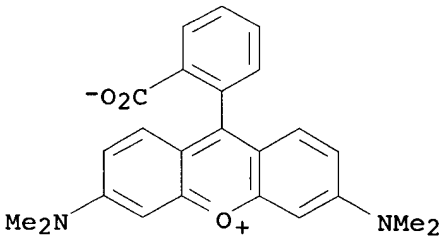
AB The invention provides peptide synthons having protected functional groups that can be selectively deprotected and subsequently modified to attach a desired moiety (e.g. a functional mol. such as a biophys. probe). Compds. R3R4NOCH2NHCH2CH(NHR1)CO2R2 [R1, R4 is H or an amino protecting group; R2 is H or a carboxy protecting group; R3 is (C1-C6)alkyl] are claimed. Thus, NH2-AKAARAAAAK(COCH2ONMeCO2CH2C6H4Cl-2)AARACA-CO2H (SA-test peptide) was prepared and selectively labeled with tetramethylrhodamine N-hydroxysuccinimidyl ester.

IT 406487-46-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of dye-labeled peptides and proteins)

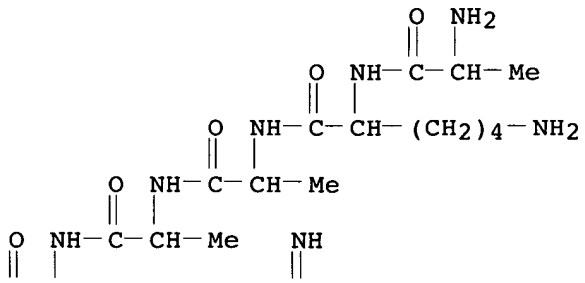
RN 406487-46-5 CAPLUS

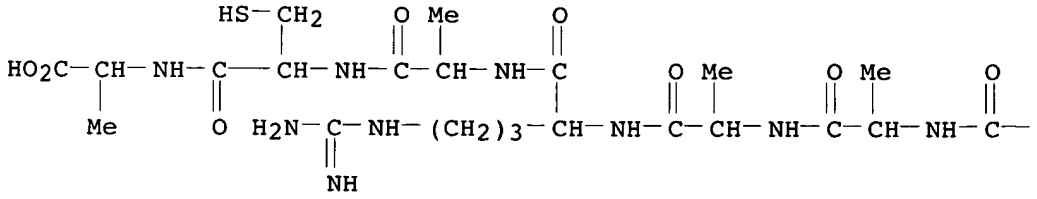
CN L-Alanine, L-alanyl-L-lysyl-L-alanyl-L-alanyl-L-arginyl-L-alanyl-L-alanyl-L-alanyl-L-alanyl-N6-[[[[3(or 4)-[3,6-bis(dimethylamino)xanthylium-9-yl]-4(or 3)-carboxybenzoyl]methylamino]oxy]acetyl]-L-lysyl-L-alanyl-L-alanyl-L-arginyl-L-alanyl-L-cysteinyl-, inner salt (9CI) (CA INDEX NAME)

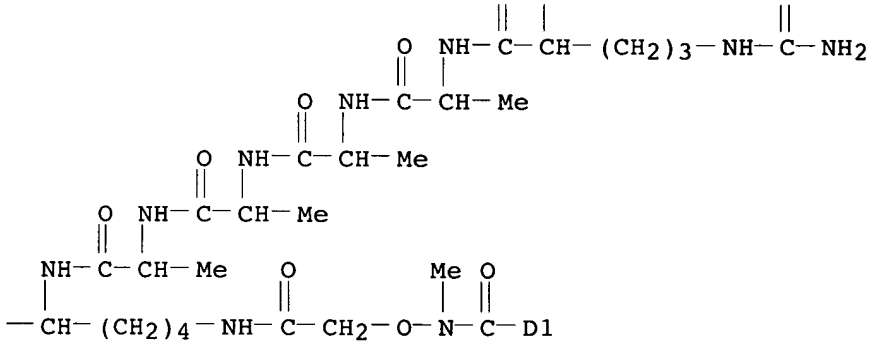
PAGE 1-A



PAGE 1-B







RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 27 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:142538 CAPLUS
DN 136:196571
TI Highly homogeneous molecular markers for electrophoresis
IN Tadayoni-Rebek, Mitra; Amshey, Joseph W.; Rooney, Regina
PA Invitrogen Corporation, USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002013848	A1	20020221	WO 2001-US25276	20010813
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2001084853	A5	20020225	AU 2001-84853	20010813
	EP 1307214	A1	20030507	EP 2001-963939	20010813
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

JP 2004506221 T2 20040226 JP 2002-518988 20010813
PRAI US 2000-224345P P 20000811
WO 2001-US25276 W 20010813

AB The invention relates to marker mols. for identifying phys. properties of mol. species separated by the use of electrophoretic systems. The invention further relates to methods for preparing and using marker mols. Peptide Cys-Leu-Lys(TMR)-Asp-Ala-Leu-Asp-Ala-Leu-Asp-Ala-Leu-Lys(TMR)-Asp-Ala was prepared by solid phase peptide synthesis and ligated with a recombinant 95-amino acid maltose-binding protein to make a marker protein with pI 4.75.

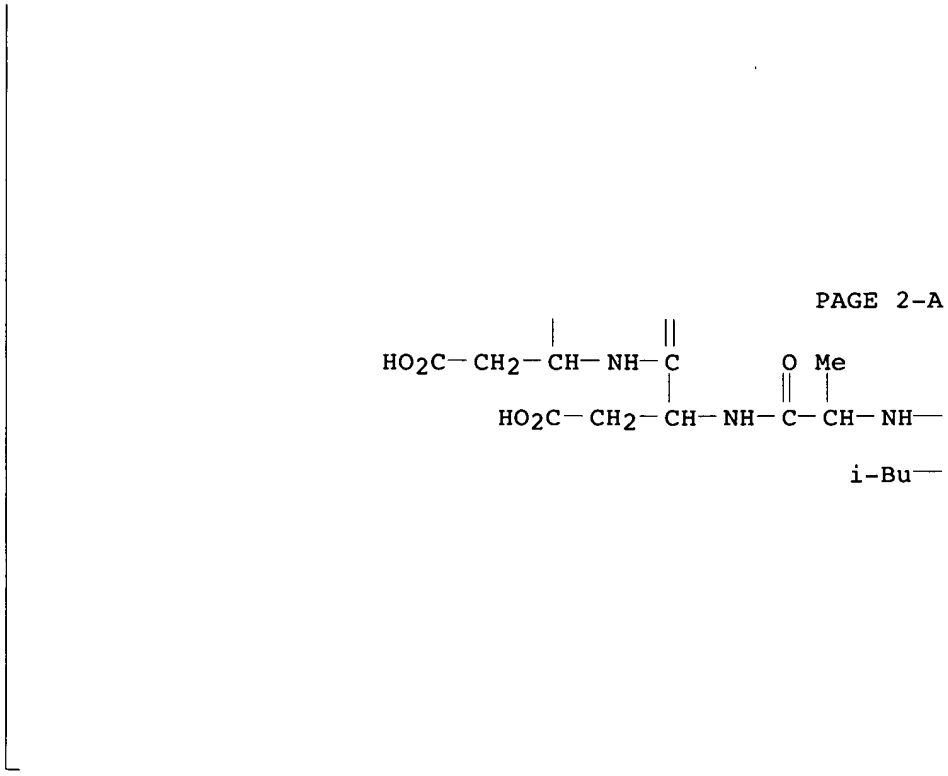
IT 401466-03-3P
RL: NUU (Other use, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation and ligation with maltose-binding protein to make marker protein; highly homogeneous mol. markers for electrophoresis)

RN 401466-03-3 CAPLUS

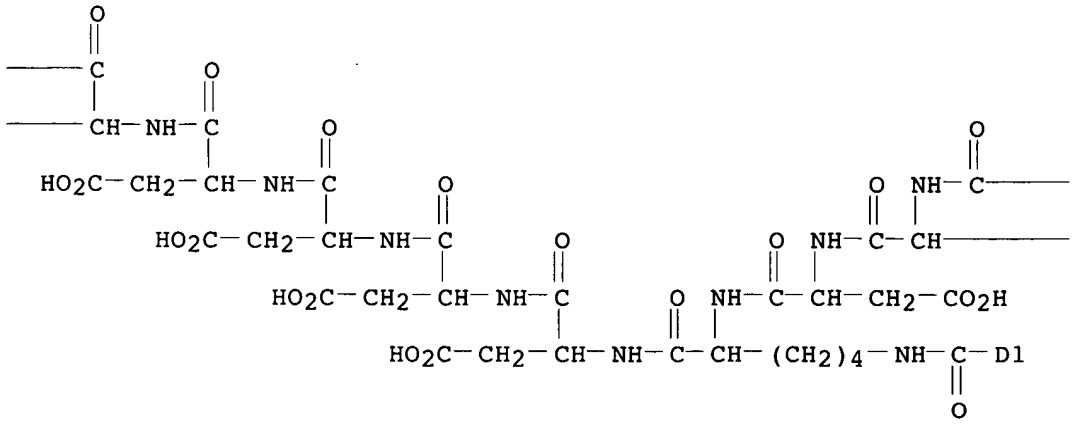
CN L-α-Asparagine, L-cysteinyl-L-α-aspartyl-L-α-aspartyl-N6-[3(or 4)-[3,6-bis(dimethylamino)xanthylium-9-yl]-4(or 3)-carboxybenzoyl]-L-lysyl-L-α-aspartyl-L-α-aspartyl-L-α-aspartyl-L-α-aspartyl-L-leucyl-L-alanyl-L-α-aspartyl-L-α-aspartyl-L-α-aspartyl-N6-[3(or 4)-[3,6-bis(dimethylamino)xanthylium-9-yl]-4(or 3)-carboxybenzoyl]-L-lysyl-, bis(inner salt) (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

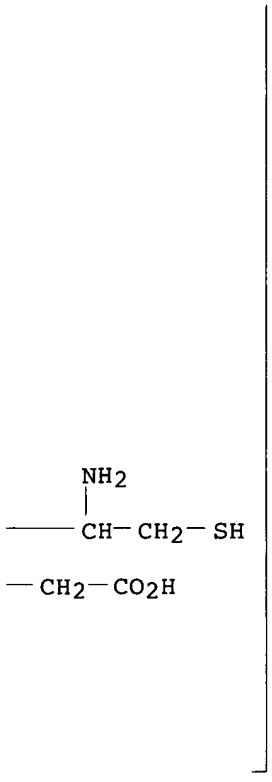
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *



PAGE 2-B



PAGE 2-C



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 28 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:575630 CAPLUS
DN 137:136024
TI Massively parallel nucleic acid sequencing using dye-labeled nucleotides with 3'-hydroxy groups protected by a small labile moiety and immobilized hairpin loop primers
IN Ju, Jingyue; Li, Zengmin; Edwards, John Robert; Itagaki, Yasuhiro
PA The Trustees of Columbia University in the City of New York, USA

SO U.S. Pat. Appl. Publ., 54 pp., Cont.-in-part of U.S. Ser. No. 684,670.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002102586	A1	20020801	US 2001-972364	20011005
	US 6664079	B2	20031216		
	US 2004185466	A1	20040923	US 2003-702203	20031106
PRAI	US 2000-684670	A2	20001006		
	US 2001-300894P	P	20010626		
	US 2001-972364	A3	20011005		

OS MARPAT 137:136024

AB This invention provides methods for attaching a nucleic acid to a solid surface and for sequencing nucleic acid by detecting the identity of each nucleotide analog after the nucleotide analog is incorporated into a growing strand of DNA in a polymerase reaction. The invention also provides nucleotide analogs which comprise unique labels attached to the nucleotide analog through a cleavable linker, and a cleavable chemical group to cap the -OH group at the 3'-position of the deoxyribose. The invention also provides nucleotide analogs which comprise unique labels, such as mass labels or fluorescent dyes, attached to the nucleotide analog through a cleavable linker, and a cleavable chemical group to cap the -OH group at the 3'-position of the deoxyribose. The method uses an array of immobilized primers. As individual bases are incorporated by primer extension, they are identified by the nature of the reporter group. The reporter moiety and the 3'-blocking group are then removed and the next base is added to primer extension product.

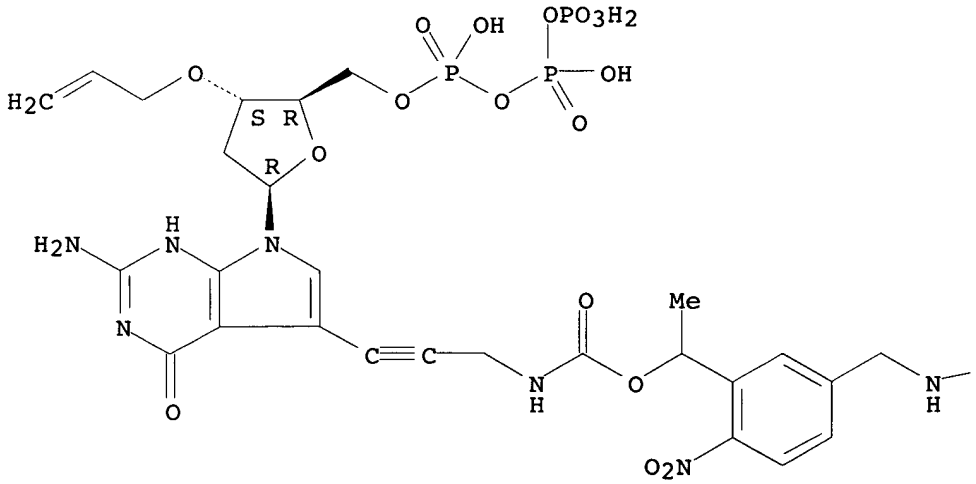
IT 407581-99-1
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(DNA sequencing using; massively parallel sequencing using dye-labeled nucleotides with 3'-hydroxy groups protected by small labile moiety and immobilized hairpin loop primers)

RN 407581-99-1 CAPLUS

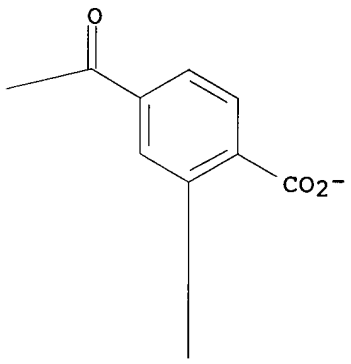
CN Xanthylium, 9-[5-[[[[3-[1-[[[[3-[2-amino-7-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-3-O-2-propenyl-β-D-erythro-pentofuranosyl]-4,7-dihydro-4-oxo-1H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propynyl]amino]carbonyl]oxy]ethyl]-4-nitrophenyl]methyl]amino]carbonyl]-2-carboxyphenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



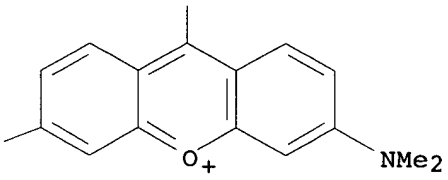
PAGE 1-B



PAGE 2-A

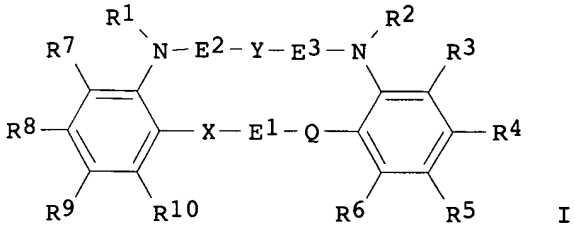
Me2N

PAGE 2-B



L4 ANSWER 29 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:978838 CAPLUS
DN 138:74702
TI Metal-chelating crown ether derivatives with an attached dye, reactive group or conjugated substance, their production and their use
IN Martin, Vladimir V.; Gee, Kyle R.; Haugland, Richard P.; Diwu, Zhenjun
PA Molecular Probes, Inc., USA
SO Brit. UK Pat. Appl., 95 pp.
CODEN: BAXXDU
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2372749	A1	20020904	GB 2001-30408	20011220
	GB 2372749	B2	20030730		
PRAI	US 2000-258266P	P	20001220		
OS	MARPAT 138:74702				
GI					



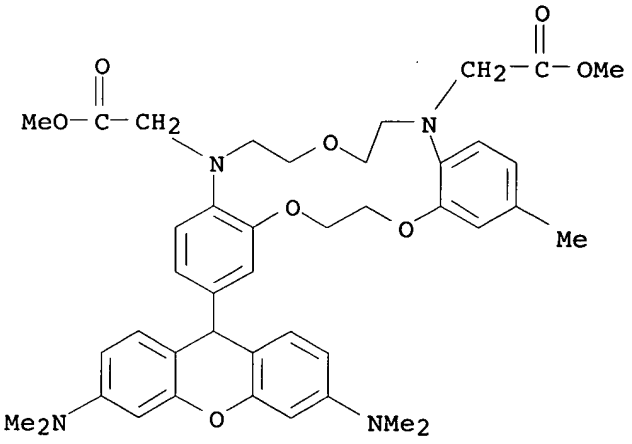
I

AB Crown ether dyes (I; E1, E2, E3 = organic connecting group; Q, X = O, S, optionally alkylated imino; R1, R2 = H, organic group; R3-R7 = H, halogen, azido, nitro, nitroso, amino, cyano, organic group; Y = O, S, optionally substituted imino) are obtained for use as fluorescent indicators with biomols. In an example, a diazatrioxadibenzo crown ether derivative with an appended hydroxydifluoroxanthenone ring was prepared which showed good intracellular fluorescence.

IT 481666-99-3P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; production of crown ether derivs. for use as fluorescent indicators with biomols.)

RN 481666-99-3 CAPLUS

CN 5H,11H-Dibenzo[e,n][1,4,10,7,13]trioxadiazacyclopentadecine-5,11-diacetic acid, 2-[3,6-bis(dimethylamino)-9H-xanthen-9-yl]-6,7,9,10,17,18-hexahydro-14-methyl-, dimethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 30 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:441468 CAPLUS

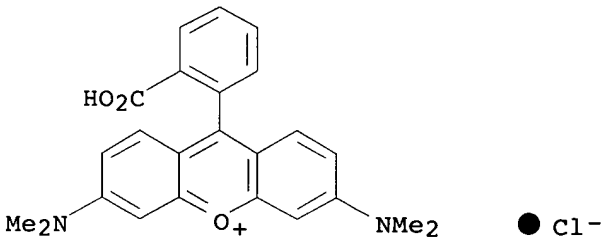
DN 137:61690

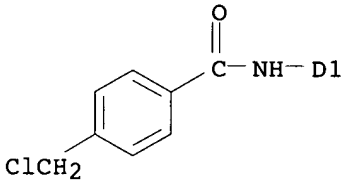
TI Two-photon imaging of lymphocyte motility and antigen response in intact lymph node

AU Miller, Mark J.; Wei, Sindy H.; Parker, Ian; Cahalan, Michael D.

CS Department of Physiology and Biophysics, University of California, Irvine,

CA, 92697-4561, USA
SO Science (Washington, DC, United States) (2002), 296(5574), 1869-1873
CODEN: SCIEAS; ISSN: 0036-8075
PB American Association for the Advancement of Science
DT Journal
LA English
AB Lymphocyte motility is vital for trafficking within lymphoid organs and for initiating contact with antigen-presenting cells. Visualization of these processes has previously been limited to in vitro systems. We describe the use of two-photon laser microscopy to image the dynamic behavior of individual living lymphocytes deep within intact lymph nodes. In their native environment, T cells achieved peak velocities of more than 25 μm per min, displaying a motility coefficient that is five to six times that of B cells. Antigenic challenge changed T cell trajectories from random walks to "swarms" and stable clusters. Real-time two-photon imaging reveals lymphocyte behaviors that are fundamental to the initiation of the immune response.
IT 221226-99-9
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(two-photon imaging of lymphocyte motility and antigen response in intact lymph node)
RN 221226-99-9 CAPLUS
CN Xanthylium, 9-[2-carboxy-4(or 5)-[[4-(chloromethyl)benzoyl]amino]phenyl]-3,6-bis(dimethylamino)-, chloride (9CI) (CA INDEX NAME)





RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 31 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:92084 CAPLUS
DN 136:291203
TI Fluorescence-labeled peptide pI markers for capillary isoelectric focusing
AU Shimura, Kiyohito; Kamiya, Kei-ichiro; Matsumoto, Hiroyuki; Kasai, Ken-ichi
CS Faculty of Pharmaceutical Sciences, Teikyo University, Sagamiko Kanagawa, 199-0195, Japan
SO Analytical Chemistry (2002), 74(5), 1046-1053
CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB Nineteen fluorescent pH stds. or pI markers ranging pH 3.64-10.12 were developed for use in capillary isoelec. focusing using laser-induced

fluorescence detection. Tetra- to tridecapeptides containing one cysteine residue were designed to focus sharply at their resp. isoelec. points by including amino acids that contain charged side chains, the pKa values of which are close to the corresponding pI values. An iodoacetylated derivative of tetramethylrhodamine was coupled to the thiol group of cysteine to yield fluorescent pI markers. The pI values of the labeled peptides were precisely determined after isoelec. focusing on polyacrylamide gel slabs by direct measurement of the pH of the focused bands. The markers were subjected to capillary isoelec. focusing for 10-15 min in coated capillaries under conditions of low electroosmosis and were detected by means of a scanning laser-induced fluorescence detector down to a level of subpicomolar range. The markers permitted the calibration of a wide-range pH gradient formed in a capillary by fluorescence detection for the first time and should facilitate the development of highly sensitive anal. methods based on a combination of capillary isoelec. focusing and laser-induced fluorescence detection.

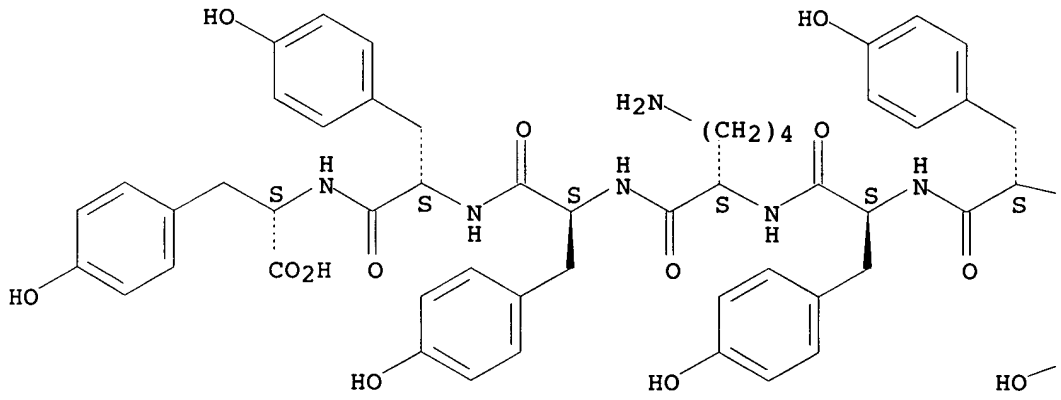
IT 407578-02-3 407578-12-5
RL: ANT (Analyte); ANST (Analytical study)
(fluorescence-labeled peptide pI markers for capillary isoelec. focusing)

RN 407578-02-3 CAPLUS

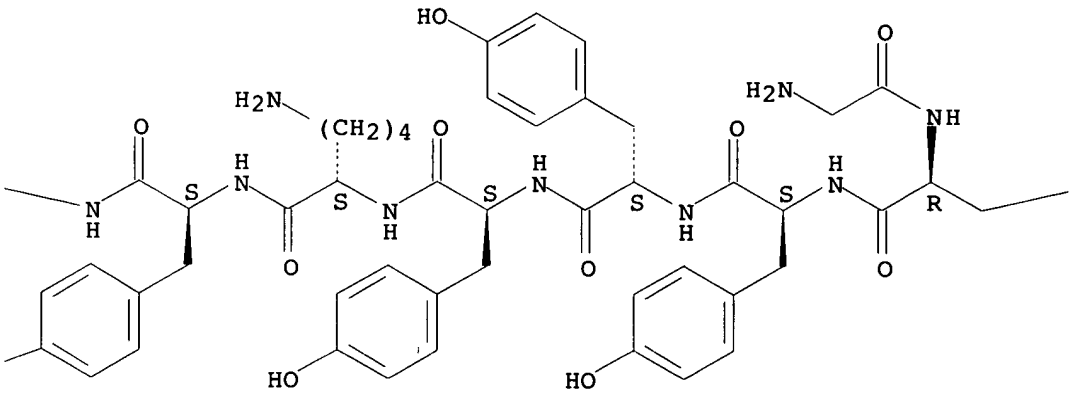
CN L-Tyrosine, glycyl-S-[2-[[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxyphenyl]amino]-2-oxoethyl]-L-cysteinyl-L-tyrosyl-L-tyrosyl-L-tyrosyl-L-lysyl-L-tyrosyl-L-tyrosyl-L-tyrosyl-L-lysyl-L-tyrosyl-L-tyrosyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

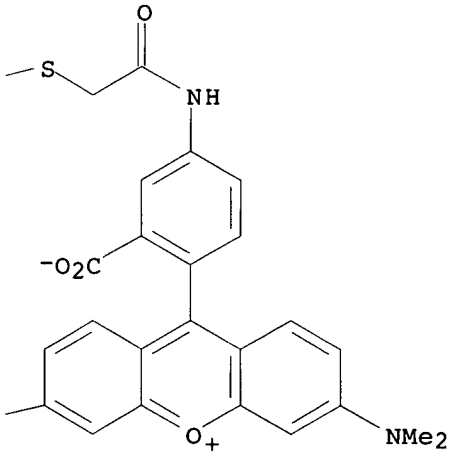
PAGE 1-A



PAGE 1-B



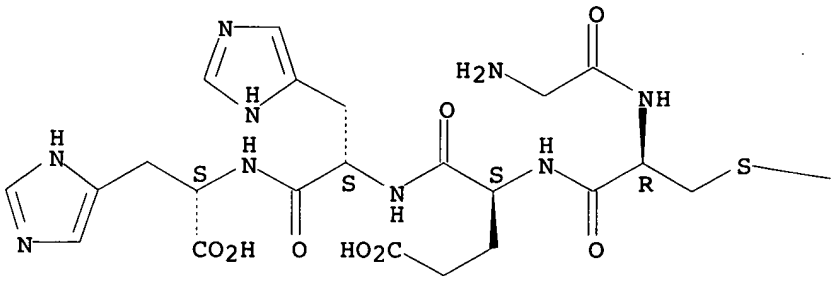
PAGE 1-C



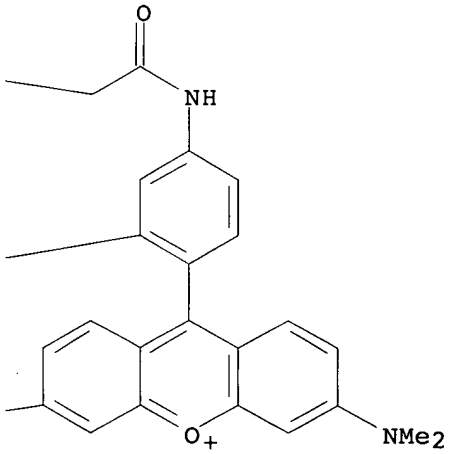
RN 407578-12-5 CAPLUS
CN L-Histidine, glycyl-S-[2-[[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxyphenyl]amino]-2-oxoethyl]-L-cysteinyl-L-α-glutamyl-L-histidyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



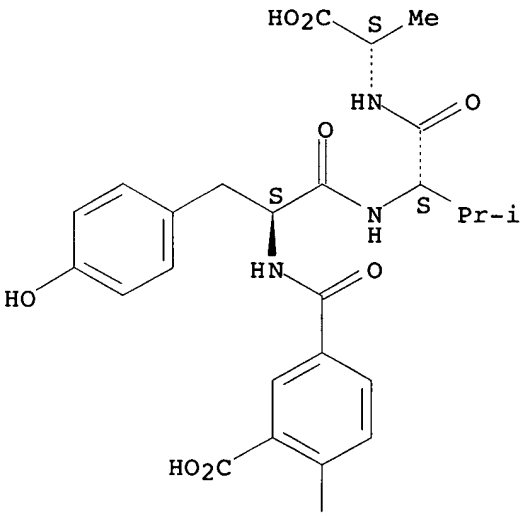
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 32 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:340822 CAPLUS
DN 137:166752
TI In situ visualization of caspase-1-like activity associated with promotion of hippocampal cell death
AU Nishii, Wataru; Shoda, Takuji; Matsumoto, Nagisa; Nakamura, Takeshi; Kudo, Yoshihisa; Takahashi, Kenji
CS Tokyo University of Pharmacy and Life Science, School of Life Science, Hachioji, Tokyo, 192-0392, Japan
SO FEBS Letters (2002), 518(1-3), 149-153
CODEN: FEBLAL; ISSN: 0014-5793
PB Elsevier Science B.V.

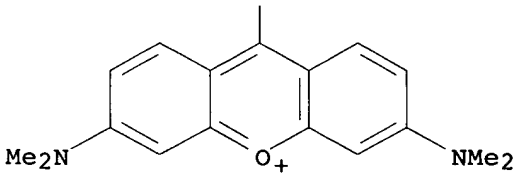
DT Journal
LA English
AB To clarify the function of caspase-1-like proteases in neuronal cell death, it is important to be able to detect the activity in living organs by microscopic visualization. In the present study, we synthesized a novel fluorescent substrate sensitive to the caspase-1-like activity, which is easily introduced into cells constituting living organs by extracellular application. As a result, the substrate was shown to be useful in imaging the caspase-1-like activity in rat hippocampal slice cultures. After induction of cell death with glutamate, a significant increase in the activity was observed, especially in the pyramidal cells, suggesting the association of the activity with promotion of cell death.
IT 447439-42-1
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(in situ visualization of caspase-1-like activity associated with promotion of hippocampal cell death)
RN 447439-42-1 CAPLUS
CN L-Alanine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-tyrosyl-L-valyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

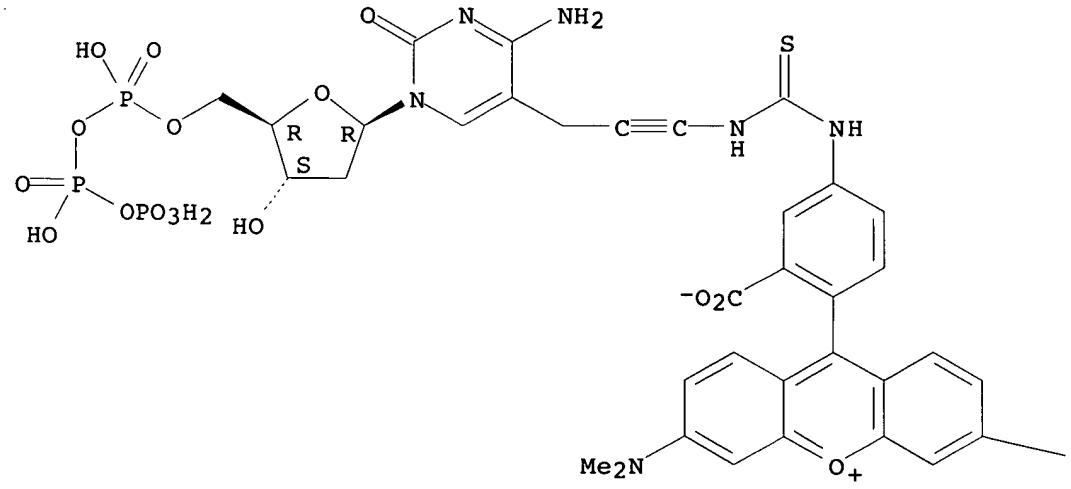


RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 33 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:594741 CAPLUS
DN 135:223611
TI Identification of nucleotides with identical fluorescent labels based on fluorescence polarization in surfactant solutions
AU Yan, Yuan; Myrick, Michael L.
CS Department of Chemistry and Biochemistry, University of South Carolina, Columbia, SC, 29208, USA
SO Analytical Chemistry (2001), 73(18), 4508-4513
CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB A solution-phase steady-state polarization-based method for discriminating among the four DNA nucleotides labeled identically with tetramethylrhodamine is described and demonstrated. Labeled nucleotides were dissolved in buffered surfactant solns. In room temperature 4.5 mM Triton X-100 solns. at neutral pH, the measured steady-state polarizations of tetramethylrhodamine-labeled dATP, dCTP, dGTP and dUTP were 0.261±0.003, 0.112±0.003, 0.288±0.003, and 0.147±0.003, resp. A blind test of 40 samples showed no errors in classification based on polarization. The reproducibility obtained during this study demonstrates that the four dye-labeled nucleotides can be discriminated with more than 99.8% confidence.
IT 359802-48-5
RL: ANT (Analyte); ANST (Analytical study)
(nucleotide determination with identical fluorescent labels based on fluorescence polarization in surfactant solns.)
RN 359802-48-5 CAPLUS
CN Xanthylium, 9-[4-[[[[3-[4-amino-1-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2-dihydro-2-oxo-5-pyrimidinyl]-1-propynyl]amino]thioxomethyl]amino]-2-carboxyphenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



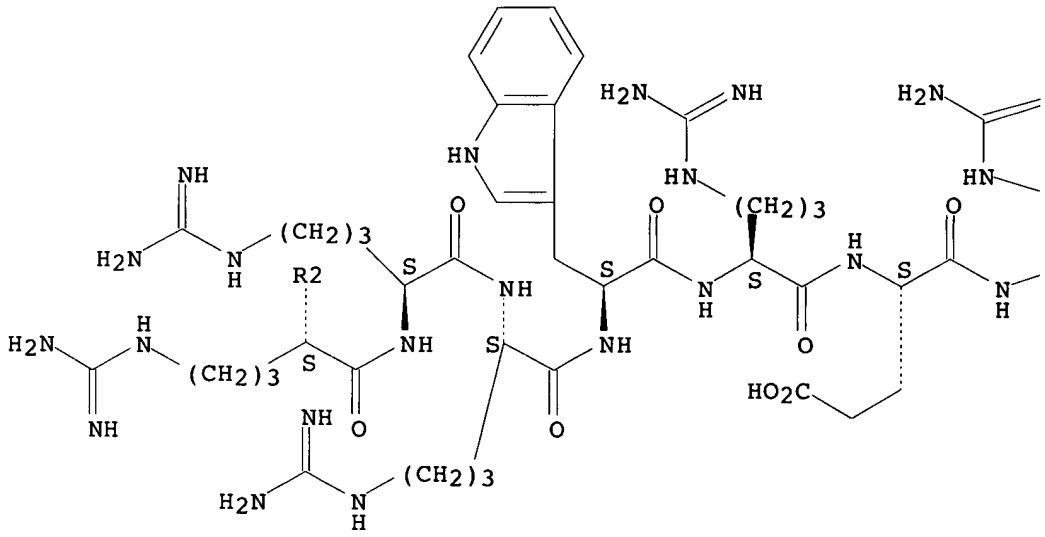
$-NMe_2$

RE.CNT 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

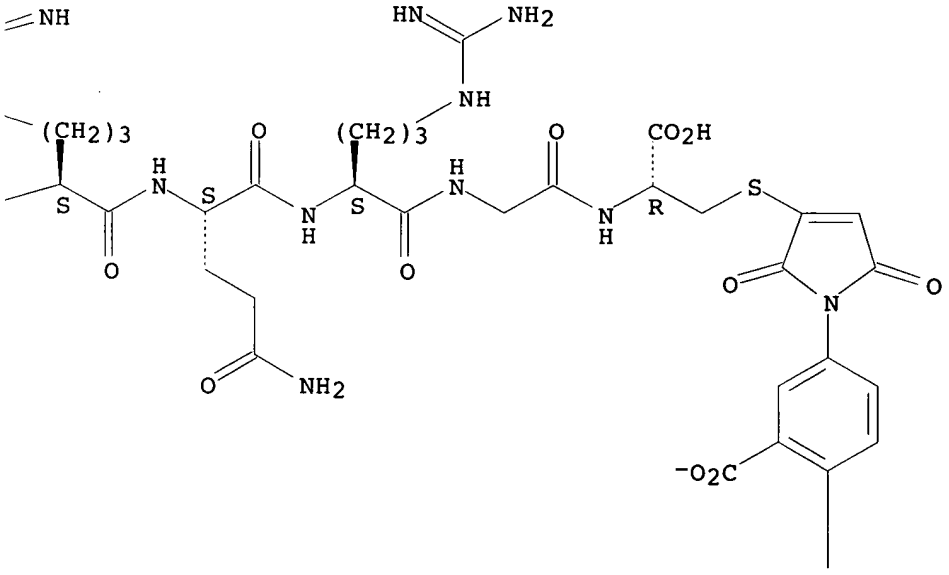
L4 ANSWER 34 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:692670 CAPLUS
DN 138:397664
TI Characterization of translocation behavior of arginine-rich membrane-permeable peptides
AU Suzuki, Tomoki; Ohashi, Wakana; Nakase, Ikuhiko; Tanaka, Seigo; Ueda, Kunihiro; Futaki, Shiroh; Sugiura, Yukio
CS Institute for Chemical Research, Kyoto University, Uji, Kyoto, 611-0011, Japan
SO Peptides: The Wave of the Future, Proceedings of the Second International and the Seventeenth American Peptide Symposium, San Diego, CA, United States, June 9-14, 2001 (2001), 961-962. Editor(s): Lebl, Michal; Houghten, Richard A. Publisher: American Peptide Society, San Diego, Calif.
CODEN: 69DBAL; ISBN: 0-9715560-0-8
DT Conference
LA English
AB Internalized arginine-rich peptides were quantified to elucidate the factors influencing the translocation efficiency. The uptake of the arginine-rich peptides by mouse macrophage HeLa and RAW264.7 cells was significantly reduced in the presence of heparan sulfate or chondroitin sulfate. Pretreatment with glycosaminoglycan lyases, such as heparitinase and chondroitinase ABC, also decreased the peptide uptake efficiency. Thus, the sulfated glycosaminoglycan played an important role in the internalization of these basic peptides.
IT 528879-49-4
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(translocation of arginine-rich membrane-permeable peptides)
RN 528879-49-4 CAPLUS
CN L-Cysteine, L-threonyl-L-arginyl-L-glutaminyl-L-alanyl-L-arginyl-L-arginyl-L-asparaginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-tryptophyl-L-arginyl-L-α-glutamyl-L-arginyl-L-glutaminyl-L-arginylglycyl-S-[1-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-2,5-dihydro-2,5-dioxo-1H-pyrrol-3-yl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

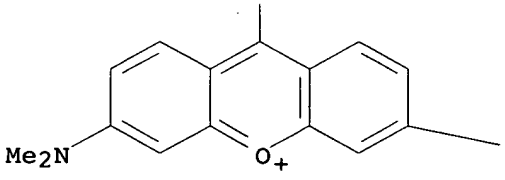
PAGE 1-A



PAGE 1-B



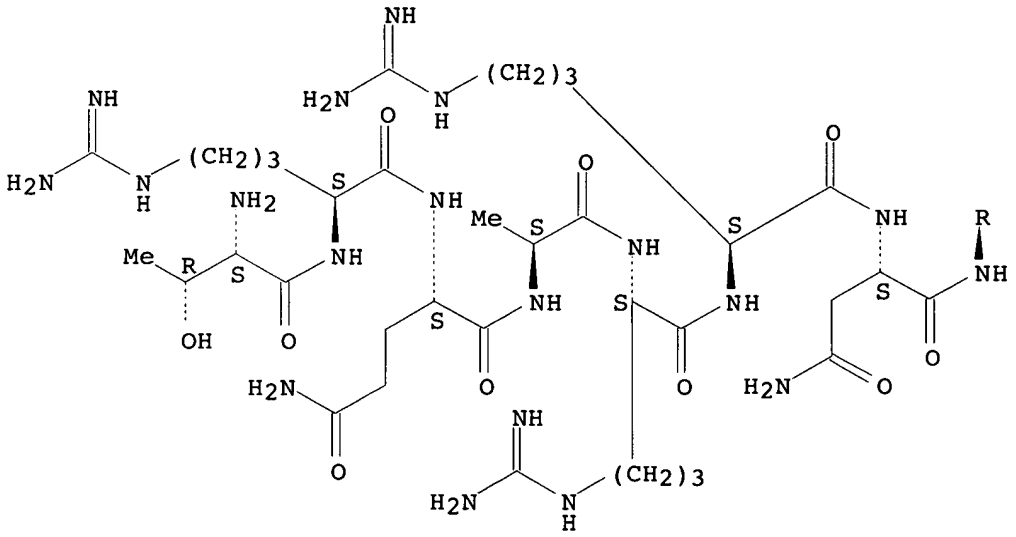
PAGE 2-B



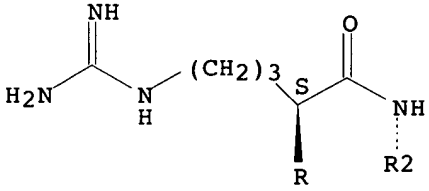
PAGE 2-C

—NMe2

PAGE 3-A



PAGE 4-A



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 35 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:752448 CAPLUS
DN 136:99649
TI Novel hyperbranched glycomimetics recognized by the human mannose receptor: quinic or shikimic acid derivatives as mannose bioisosteres
AU Grandjean, Cyrille; Angyalosi, Gerhild; Loing, Estelle; Adriaenssens, Eric; Melnyk, Oleg; Pancre, Veronique; Auriault, Claude; Gras-Masse, Helene
CS Lab. de Synthese, Structure et Fonction des Biomolecules UMR 8525, Inst. de Biologie/Inst. Pasteur de Lille et CNRS, Lille, 59021, Fr.
SO ChemBioChem (2001), 2(10), 747-757
CODEN: CBCHFX; ISSN: 1439-4227
PB Wiley-VCH Verlag GmbH
DT Journal

LA English

AB The mannose receptor mediates the internalization of a wide range of mols. or microorganisms in a pattern recognition manner. Therefore, it represents an attractive entry for specific drug, gene, or antigen delivery to macrophages and dendritic cells. In an attempt to design novel effective synthetic mannose receptor ligands, quinic and shikimic acid were selected as putative mannose mimics on the basis of X-ray crystallog. data from the related rat mannose-binding lectin. As the mannose receptor preferentially binds to mols. displaying several sugar residues, fluorescein-labeled cluster quinic and shikimic acid derivs. with valencies of two to eight were synthesized. Their mannose receptor mediated uptake was assayed on monocyte-derived human dendritic cells by cytofluorimetric anal. Mannose-receptor specificity was further assessed by competitive inhibition assays with mannan, by confocal microscopy anal., and by expression of the mannose receptor in transfected Cos-1 cells. Constructs derived from both quinic and shikimic acid were efficiently recognized by the mannose receptor with an optimum affinity for the mols. with a valency of four. As a result, com. available quinic and shikimic acids appear as stable mannose bioisosteres, which should prove valuable tools for specific cell delivery.

IT 389117-88-8P

RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

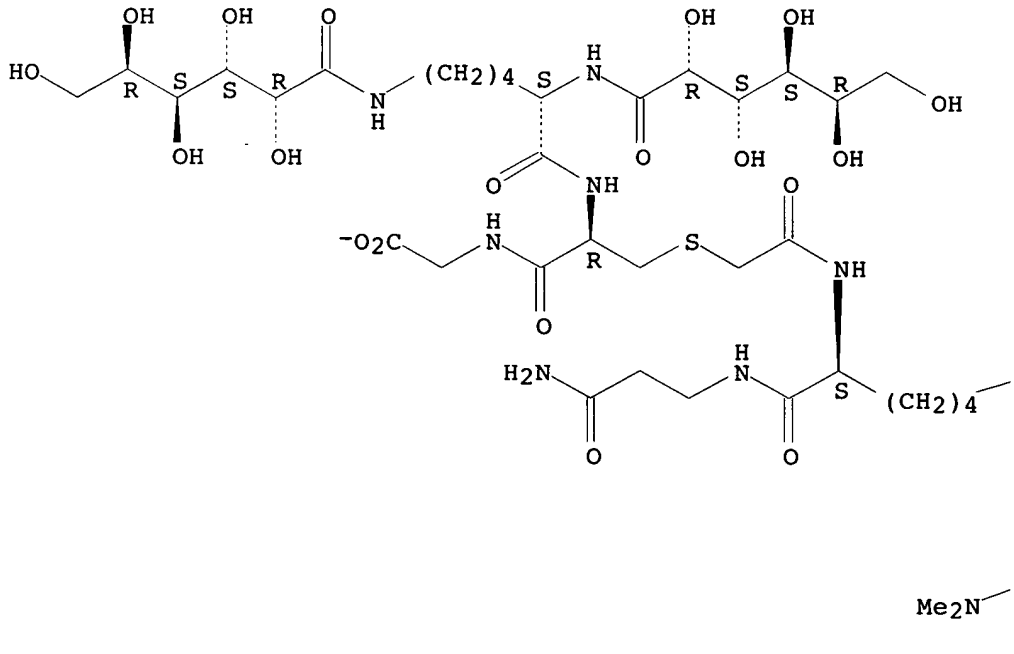
(synthetic lysine-based cluster of quinic and shikimic acid derivs. as glycomimetics recognized by human mannose receptor)

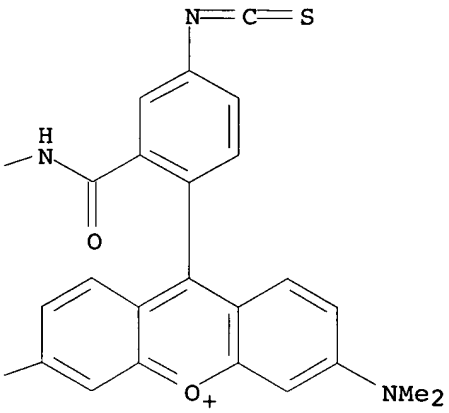
RN 389117-88-8 CAPLUS

CN Glycine, N2,N6-di-D-galactonoyl-L-lysyl-L-cysteinyl-, (2→1')-thioether with N6-[2-[3,6-bis(dimethylamino)xanthylium-9-yl]-5-isothiocyanatobenzoyl]-N2-(mercaptoacetyl)-L-lysyl-β-alaninamide, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





RE.CNT 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 36 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:510330 CAPLUS
DN 136:236796
TI Acrylic hydrogel implants after spinal cord lesion in the adult rat
AU Giannetti, S.; Lauretti, L.; Fernandez, E.; Salvinelli, F.; Tamburrini, G.; Pallini, R.
CS Institute of Anatomy, Catholic University Medical School, Rome, 00168, Italy
SO Neurological Research (2001), 23(4), 405-409
CODEN: NRESDZ; ISSN: 0161-6412
PB Forefront Publishing
DT Journal
LA English
AB Acrylic hydrogels, like the polymer of 2-hydroxyethyl methacrylate, are biocompatible, mech. stable, porous materials that can be coated with collagen or laminin acting as bioadhesive substrates. Poly-2-hydroxyethyl methacrylate sponges have been proposed for restoring the anatomical continuity of damaged neural structures. In the present work, the ability of poly-2-hydroxyethyl methacrylate sponges to provide the injured spinal cord neurons with a conductive substrate for their regenerating axons was investigated in 32 adult Wistar rats. Collagen impregnated poly-2-hydroxyethyl methacrylate sponges were implanted into suction cavities of the dorsal funiculus of the spinal cord. Two to four months after implantation, the spinal cord was removed and processed for histol., and S100 and GFAP immunohistochem. To study axonal regeneration into the sponge, the spinal cord or the sensorimotor cortex were injected with 0.05-0.1 μl of an 8% solution of lectin-conjugated horseradish peroxidase or 10% dextran tetramethylrhodamine. The fibroglial reaction, accumulation of mononuclear cells, and angiogenesis at the interface between the spinal cord and the sponge were minimal. Cystic cavitation in the spinal cord was virtually absent. Anterograde labeled axons were seen to penetrate and to elongate the full length of the sponge. These results demonstrate that poly-2-hydroxyethyl methacrylate sponges represent a safe supportive material for regenerating spinal cord axons.
IT 137455-29-9

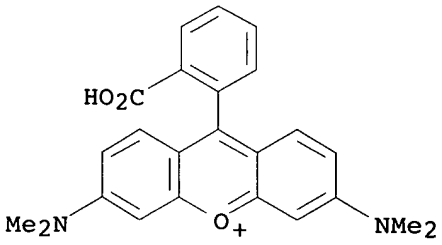
RL: MOA (Modifier or additive use); USES (Uses)
(acrylic hydrogel implants after spinal cord lesion in adult rat)

RN 137455-29-9 CAPLUS

CN Dextran, compd. with 9-(2-carboxyphenyl)-3,6-bis(dimethylamino)xanthylium chloride (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70281-37-7
CMF C24 H23 N2 O3 . Cl



● Cl-

CM 2

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

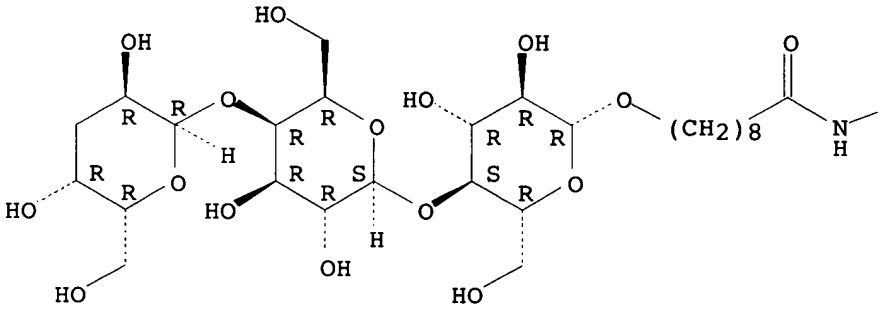
L4 ANSWER 37 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:85305 CAPLUS
DN 132:247874
TI Enzymatic Synthesis of Oligosaccharide Analogues: Evaluation of UDP-Gal Analogues as Donors for Three Retaining α-Galactosyltransferases
AU Sujino, Keiko; Uchiyama, Taketo; Hindsgaul, Ole; Seto, Nina O. L.; Wakarchuk, Warren W.; Palcic, Monica M.
CS Department of Chemistry, University of Alberta, Edmonton, AB, T6G 2G2, Can.
SO Journal of the American Chemical Society (2000), 122(7), 1261-1269
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 132:247874
AB A series of deoxygenated uridine 5'-diphosphogalactose (UDP-Gal) derivs. are evaluated as donors for three different retaining galactosyltransferases using capillary electrophoresis with laser-induced fluorescence detection. The enzymes investigated were calf thymus α(1→3) galactosyltransferase (E.C. 2.4.1.151), blood group B α(1→3) galactosyltransferase (E.C. 2.4.1.37) and Neisseria meningitidis α(1→4) galactosyltransferase. UDP-2-deoxy-Gal and UDP-6-deoxy-Gal were found to be active as donors for all three enzymes. Preparative syntheses utilizing these UDP-Gal derivs. were performed on milligram scales, affording deoxygenated trisaccharide analogs in 5-100% yields.

IT 262605-94-7P 262605-95-8P
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(enzymic preparation of deoxygenated oligosaccharide analogs and evaluation of UDP-Gal analogs as donors for three retaining α-galactosyltransferases)

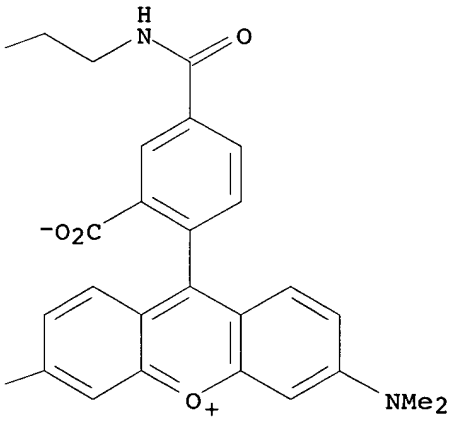
RN 262605-94-7 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[2-[[9-[(O-3-deoxy-α-D-xylo-hexopyranosyl-(1→4)-O-β-D-galactopyranosyl-(1→4)-β-D-glucopyranosyl)oxy]-1-oxononyl]amino]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



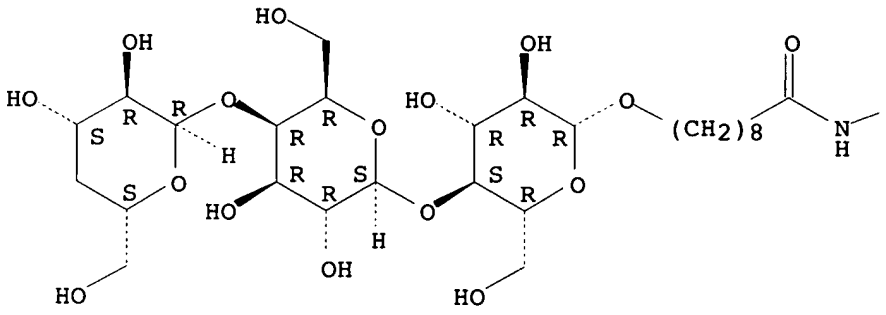
PAGE 1-B



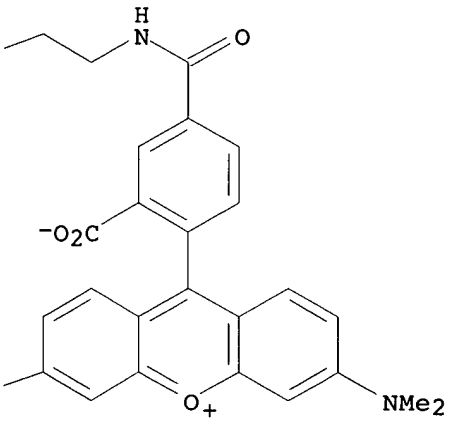
RN 262605-95-8 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[2-[[9-[(O-4-deoxy-α-D-xylo-hexopyranosyl-(1→4)-O-β-D-galactopyranosyl-(1→4)-β-D-glucopyranosyl)oxy]-1-oxononyl]amino]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 38 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:698684 CAPLUS
DN 134:112500
TI Effects of amine modifiers on the separation of tetramethylrhodamine-labeled mono- and oligosaccharides by capillary zone electrophoresis
AU Osthoff, H. D.; Sujino, K.; Palcic, M. M.; Dovichi, N. J.
CS Department of Chemistry, University of Alberta, Edmonton, AB, T6G 2G2, Can.
SO Journal of Chromatography, A (2000), 895(1+2), 285-290
CODEN: JCRAEY; ISSN: 0021-9673
PB Elsevier Science B.V.
DT Journal
LA English

AB In this work, nine tetramethylrhodamine (TMR) labeled isomeric oligosaccharide derivs. of βGal(1 4) βGlcNAc-O-TMR were separated by capillary zone electrophoresis coupled with laser-induced fluorescence detection. Charged species were created in situ by complexation with borate and phenylborate. Micellar separation was achieved by addition of 10 mM sodium dodecylsulfate to the running buffer. We have investigated the effects of adding a homologous series of monoamine modifiers on the separation efficiency of these oligosaccharides. The separation was significantly improved in the presence of the organic modifiers methyl- and ethylamines, but worsened in the presence of propyl- and butylamines. Possible mechanisms of the amine additives are discussed.

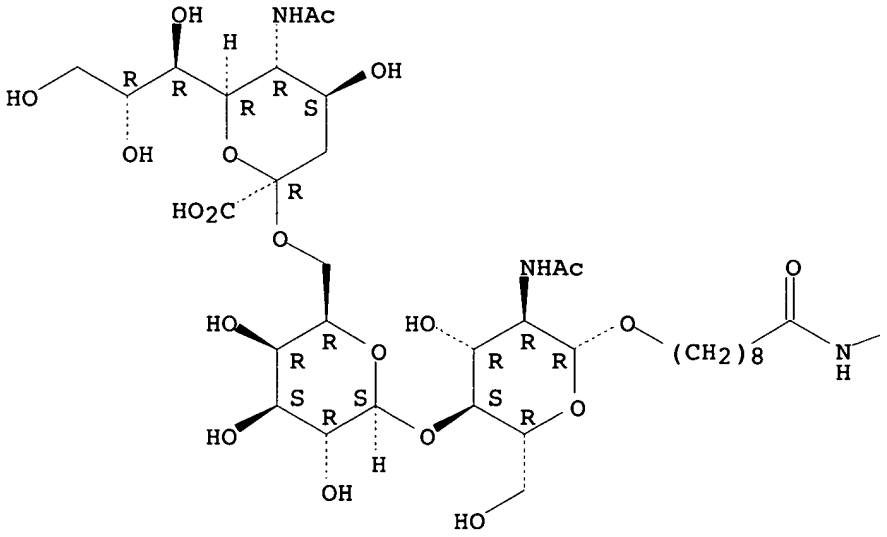
IT 320578-12-9
RL: ANT (Analyte); ANST (Analytical study)
(effects of amine modifiers on separation of tetramethylrhodamine-labeled mono- and oligosaccharides by capillary zone electrophoresis)

RN 320578-12-9 CAPLUS

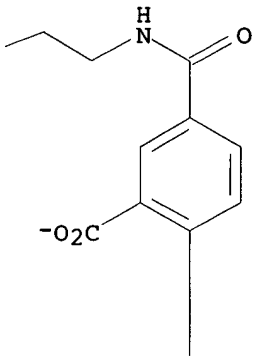
CN Xanthylium, 9-[2-carboxy-4-[[[2-[[9-[[O-(N-acetyl-α-neuraminosyl)-(2→6)-O-β-D-galactopyranosyl-(1→4)-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]-1-oxononyl]amino]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

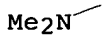
PAGE 1-A



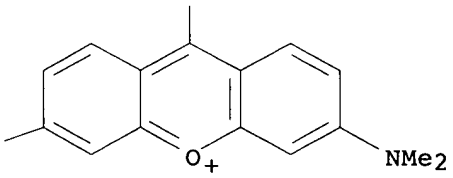
PAGE 1-B



PAGE 2-A



PAGE 2-B



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 39 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:572765 CAPLUS
DN 133:335456
TI A strategy for highly parallel synthesis of tyrosine- and histidine-reactive labeling reagents
AU Lopez-Calle, E.; Fries, J. R.; Riester, D.; Winkler, D.
CS EVOTEC BioSystems AG, Hamburg, D-22525, Germany
SO Chimica Oggi (2000), 18(6), 28-32
CODEN: CHOGDS; ISSN: 0392-839X
PB TeknoScienze
DT Journal
LA English

OS CASREACT 133:335456
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

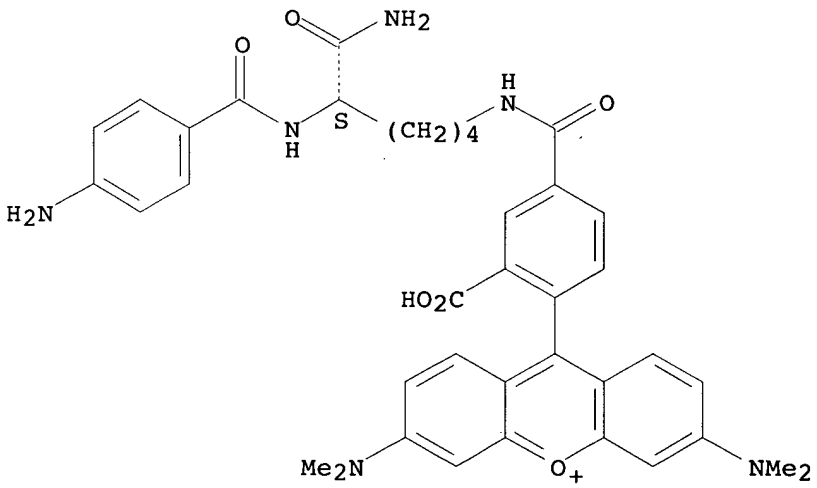
AB The authors described a method for the fast and effective synthesis of tyrosine- and histidine-reactive labeling reagents, some of them being fluorescent. The labeling reagents were derivatized with lysine and p-aminobenzoic acid on solid phase. For example, tetramethylrhodamine derivative I was prepared; the free amino moiety in I was converted to its diazonium form in-situ, and then, reacted with tyrosine to give the labeled tyrosine II. Thus, using this procedure, histidine, atenolol, a peptide (neurotensin) and some proteins (chymotrypsin, streptavidin, alkaline phosphatase, etc.) were similarly labeled.

IT 304449-89-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of tyrosine- and histidine-reactive labeling reagents for peptides and proteins)

RN 304449-89-6 CAPLUS

CN Xanthylium, 9-[4-[[[(5S)-6-amino-5-[(4-aminobenzoyl)amino]-6-oxohexyl]amino]carbonyl]-2-carboxyphenyl]-3,6-bis(dimethylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



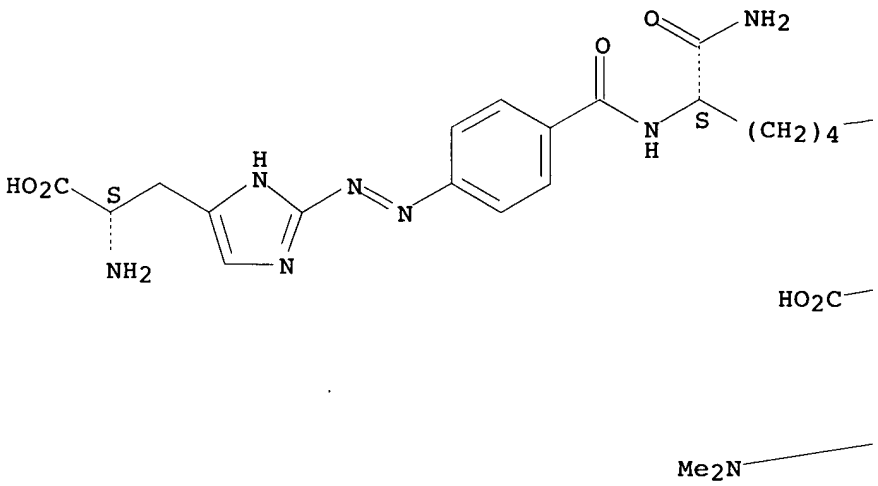
IT 304450-08-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of tyrosine- and histidine-reactive labeling reagents for peptides and proteins)

RN 304450-08-6 CAPLUS

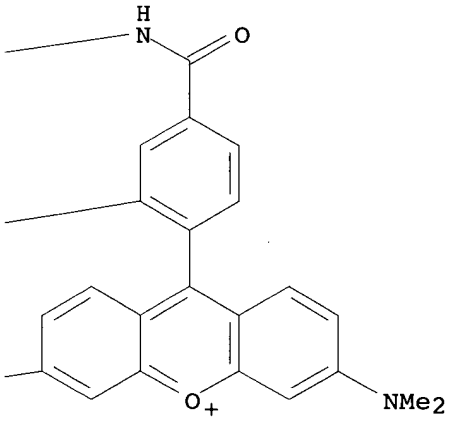
CN Xanthylium, 9-[4-[[[(5S)-6-amino-5-[[4-[[4-[(2S)-2-amino-2-carboxyethyl]-1H-imidazol-2-yl]azo]benzoyl]amino]-6-oxohexyl]amino]carbonyl]-2-carboxyphenyl]-3,6-bis(dimethylamino)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 40 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:731601 CAPLUS
DN 132:102064
TI AOTF-based remote sensor with sol-gel probe
AU Volkan, Murvet; Lee, Yuan; Vo-Dinh, Tuan
CS Advanced Monitoring Development Group Life Sciences Division, Oak Ridge National Laboratory, Oak Ridge, TN, 37831-6101, USA
SO Instrumentation Science & Technology (1999), 27(5), 343-355
CODEN: ISCTEF; ISSN: 1073-9149
PB Marcel Dekker, Inc.
DT Journal
LA English
AB The authors report the development and application of a sensor using acoustooptic tunable filter (AOTF) and sol-gel probe technol. A pH-sensitive probe is used as a model sensing system with dextran derivs. of pH sensitive dyes doped into sol-gel thin films. The authors used a

unique combination of pH-sensitive and pH-insensitive dual-label dye system. For optimization studies, the performance of these films as a pH sensing probe was evaluated using synchronous fluorescence detection. The performance of the a prototype AOTF-based monitor using a low-power argon laser as an ion excitation source was evaluated.

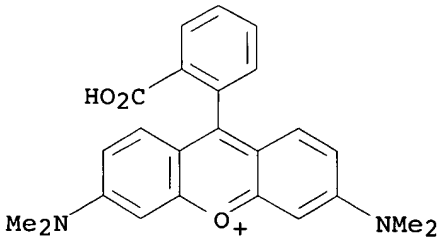
IT 137455-29-9
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(fluorescence response of AOTF-based sol-gel pH sensor system)

RN 137455-29-9 CAPLUS

CN Dextran, compd. with 9-(2-carboxyphenyl)-3,6-bis(dimethylamino)xanthylium chloride (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70281-37-7
CMF C24 H23 N2 O3 . Cl



● Cl-

CM 2

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 41 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:132828 CAPLUS
DN 130:308233
TI Single cell studies of enzymic hydrolysis of a tetramethylrhodamine labeled triglucoside in yeast
AU Le, X. Chris; Tan, Woei; Scaman, Christine H.; Szpacenko, Adam; Arriaga, Edgar; Zhang, Yanni; Dovichi, Norman J.; Hindsgaul, Ole; Palcic, Monica M.
CS Department of Public Health Sciences, Faculty of Medicine, University of Alberta, Edmonton, AB, T6G 2G3, Can.
SO Glycobiology (1999), 9(3), 219-225
CODEN: GLYCE3; ISSN: 0959-6658
PB Oxford University Press
DT Journal
LA English
AB Several hundred mols. of enzyme reaction products were detected in a single spheroplast from yeast cells incubated with a tetramethylrhodamine (TMR) labeled triglucoside, α-D-Glc(1→2)α-D-Glc(1→3)α-D-Glc-O(CH2)8CONHCH2-CH2NH-COTMR. Product detection was accomplished using capillary electrophoresis and laser

induced fluorescence following the introduction of a single spheroplast into the separation capillary. The in vivo enzymic hydrolysis of the TMR-trisaccharide involves at least two enzymes, limited by processing α-glucosidase I, producing TMR-disaccharide, TMR-monosaccharide, and the free TMR-linking arm. Hydrolysis was reduced by preincubation of the cells with the processing enzyme inhibitor castanospermine. Confocal laser scanning microscopy studies confirmed the uptake and internalization of fluorescent substrate. This single cell anal. methodol. can be applied for the in vivo assay of any enzyme with a fluorescent substrate.

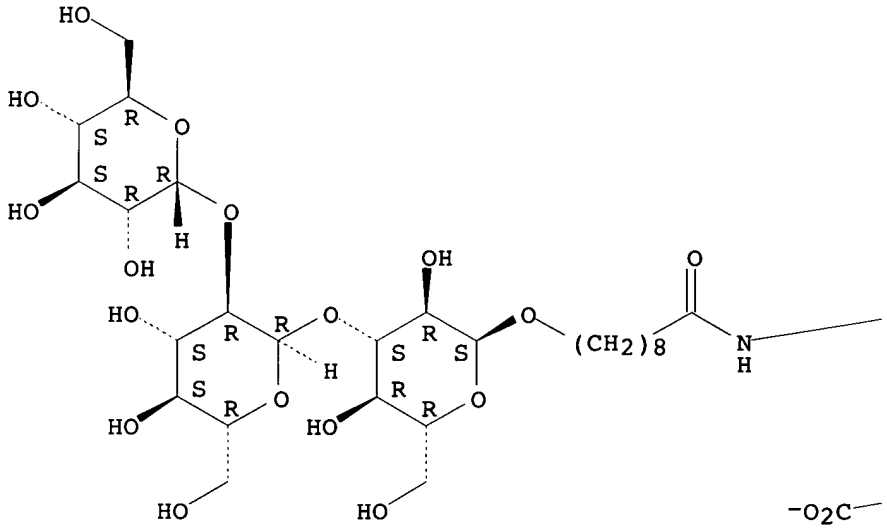
IT 187729-35-7
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(single cell studies of enzymic hydrolysis of a tetramethylrhodamine labeled triglucoside in yeast)

RN 187729-35-7 CAPLUS

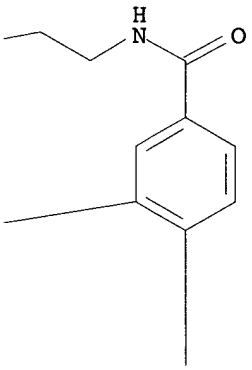
CN Xanthylium, 9-[2-carboxy-4-[[[2-[[9-[(O-α-D-glucopyranosyl-(1→2)-O-α-D-glucopyranosyl-(1→3)-α-D-glucopyranosyl)oxy]-1-oxononyl]amino]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

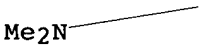
PAGE 1-A



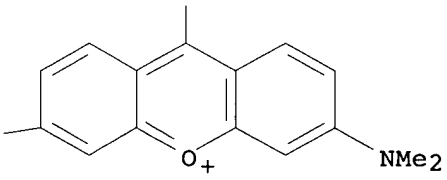
PAGE 1-B



PAGE 2-A



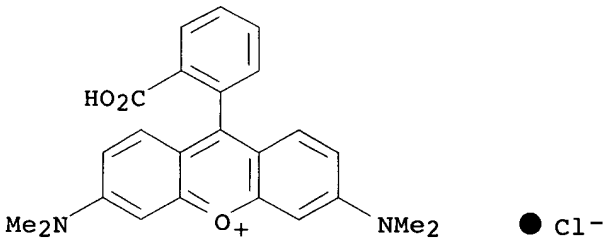
PAGE 2-B

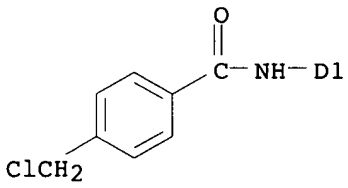


RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 42 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:781031 CAPLUS
DN 130:236109
TI A standardized, computer-assisted in vitro assay for the assessment of neutrophil transmigration across endothelial monolayers
AU Groger, Marion; Matsumura, Tetsuri; Kohrgruber, Norbert; Maurer, Dieter; Wolff, Klaus; Petzelbauer, Peter
CS Division of General Dermatology, University of Vienna Medical School, Vienna, A-1090, Austria
SO Journal of Immunological Methods (1999), 222(1-2), 101-109
CODEN: JIMMBG; ISSN: 0022-1759
PB Elsevier Science B.V.

DT Journal
LA English
AB We describe an automated, observer-independent and highly reproducible assay for the quantification of transmigrated neutrophils across endothelial monolayers. Endothelial cells grown on collagen gels were loaded with a dye emitting red fluorescence. Neutrophils loaded with dye emitting green fluorescence were allowed to adhere to and transmigrate across endothelial monolayers. For quantification of adherent and migrated cells, randomly selected fields were scanned by confocal laser scan microscopy at defined depths within and below the endothelial monolayers. The images obtained were transferred into the public domain NIH image program and nos. and distribution of cells within scanned sectors were automatically calculated We demonstrate that adherent neutrophils are easily discriminated from transmigrated cells; absolute nos. of migrated cells can be reproducibly calculated by counting cells at a depth of -20 μm, thus permitting evaluation of large-scale expts.; the efficacy of neutrophil transmigration depends on the level of endothelial activation after TNF stimulation and mAbs to cell surface adhesion mols. interfere with migration in a manner similar to that previously shown in in vivo expts. This assay lends itself to the identification of mols. influencing cell migration in each phase of EC activation and to the screening of pro- and anti-migratory properties of biol. or pharmacol. reagents.
IT 221226-99-9
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(in standardized, computer-assisted in vitro assay for assessment of neutrophil transmigration across endothelial monolayers)
RN 221226-99-9 CAPLUS
CN Xanthylium, 9-[2-carboxy-4(or 5)-[[4-(chloromethyl)benzoyl]amino]phenyl]-3,6-bis(dimethylamino)-, chloride (9CI) (CA INDEX NAME)





RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 43 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:440187 CAPLUS
DN 127:46039
TI Lipopolyamines as transfection agents and pharmaceutical uses thereof
IN Byk, Gerardo; Scherman, Daniel; Schwartz, Bertrand; Dubertret, Catherine
PA Rhone-Poulenc Rorer S.A., Fr.; Byk, Gerardo; Scherman, Daniel; Schwartz, Bertrand; Dubertret, Catherine
SO PCT Int. Appl., 81 pp.
CODEN: PIXXD2

DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9718185	A1	19970522	WO 1996-FR1774	19961108
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	FR 2741066	A1	19970516	FR 1995-13490	19951114
	FR 2741066	B1	19971212		
	CA 2235721	AA	19970522	CA 1996-2235721	19961108
	AU 9675768	A1	19970605	AU 1996-75768	19961108
	AU 718568	B2	20000413		
	EP 861228	A1	19980902	EP 1996-938291	19961108
	EP 861228	B1	20000823		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI				
	BR 9611533	A	19990713	BR 1996-11533	19961108
	JP 2000501383	T2	20000208	JP 1997-518621	19961108
	AT 195721	E	20000915	AT 1996-938291	19961108
	ES 2151185	T3	20001216	ES 1996-938291	19961108
	PT 861228	T	20010228	PT 1996-938291	19961108
	IL 124411	A1	20010913	IL 1996-124411	19961108
	SK 282173	B6	20011106	SK 1998-631	19961108
	ZA 9609489	A	19970602	ZA 1996-9489	19961112
	NO 9801944	A	19980429	NO 1998-1944	19980429
	US 6171612	B1	20010109	US 1998-68753	19980513
	GR 3034204	T3	20001130	GR 2000-401102	20000831
PRAI	FR 1995-13490	A	19951114		
	WO 1996-FR1774	W	19961108		

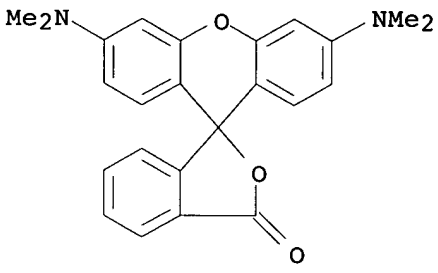
OS MARPAT 127:46039

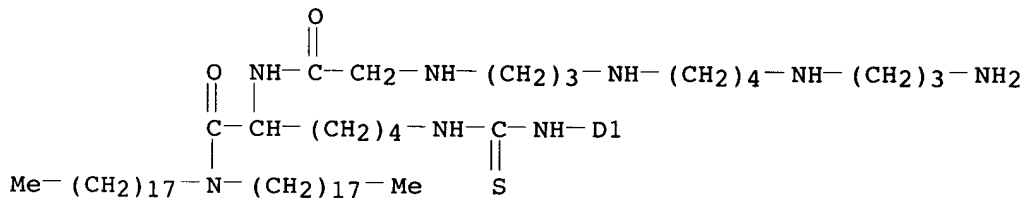
AB Lipopolyamines R1R2N[(CH2)mNR3]n(CH2)pCO[X(CHR5)rY]uNR6R7 (I; R1-3=H, (CH2)q-NRR', where q=1-6 and R,R'=H, (CH2)q'NH2 where q'=1-6; m,n,p=0-6; R6,R7=H, (unsatd.) C10-22-alkyl, with the proviso that ≥2 groupings are not hydrogen; u=0-10; X=O, S, monoalky NH; Y=C:O, CH2; R5=H, (substituted) natural amino acid side chain; u,r=1-10, with the proviso that when r=1, R5=(substituted) natural amino acid side chain and when r>1, R=H) is disclosed. Pharmaceutical compns. containing I and the use of these compns. for in vitro or in vivo nucleic acid transfection in cells, are also disclosed. Many I were synthesized and tested for efficiency in transfection of mammalian cells. The effects of ratio of charge of amine to phosphate, of length and structure of spacer, of presence of DOPE, and of concentration of nucleic acid in the mixture were studied.

IT 191236-75-6P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(lipopolyamines as transfection agents and pharmaceutical uses thereof)

RN 191236-75-6 CAPLUS

CN L-Lysinamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]glycyl-N6-[[[3',6'-bis(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]amino]thioxomethyl]-N,N-dioctadecyl- (9CI) (CA INDEX NAME)

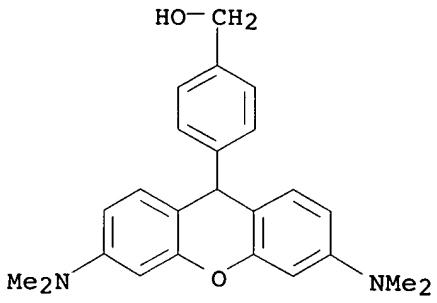




L4 ANSWER 44 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:735881 CAPLUS
DN 128:11614
TI Xanthylium dyes that are well retained in mitochondria
IN Zhang, Yu-zhong; Haugland, Richard P.
PA Molecular Probes, Inc., USA
SO U.S., 17 pp., Cont.-in-part of U.S. 5,459,268.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5686261	A	19971111	US 1995-383298	19950203
	US 5459268	A	19951017	US 1993-143440	19931025
PRAI	US 1993-143440	A2	19931025		

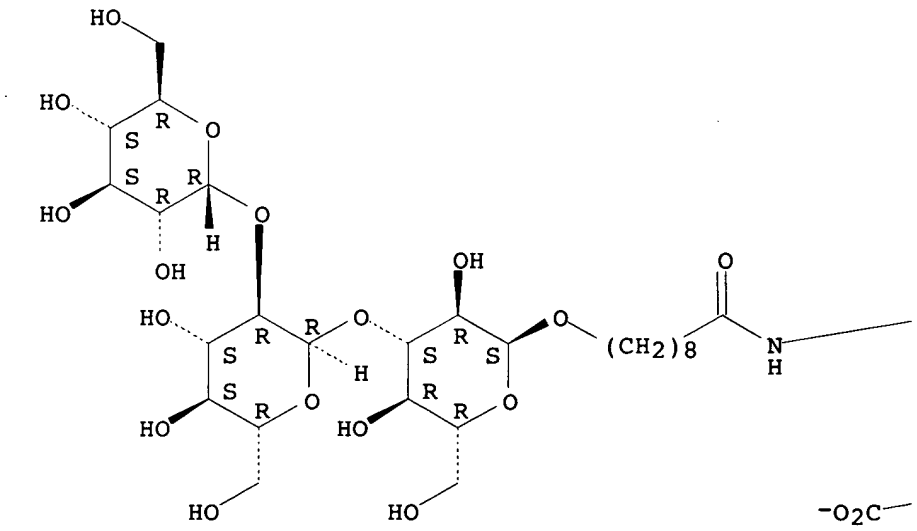
OS MARPAT 128:11614
AB The present invention describes a method of staining mitochondria, and analyzing mitochondrial function, using a class of fluorescent substituted 3',6'-diaminoxanthenes and their reduced analogs, the 3',6'-diaminodihydroxanthenes, which are oxidized to the fluorescent form of the dye in situ. In their oxidized form, the dyes selectively localize within mitochondria. The dyes of the invention are substituted by an alkylating group that allows their retention in mitochondria even after cell death, fixation, and permeabilization.
IT 167095-04-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(xanthylium dyes for fluorescent staining of mitochondria)
RN 167095-04-7 CAPLUS
CN Benzenemethanol, 4-[3,6-bis(dimethylamino)-9H-xanthen-9-yl]- (9CI) (CA INDEX NAME)



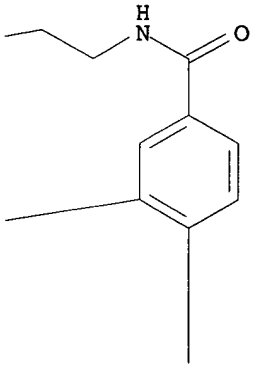
L4 ANSWER 45 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:185372 CAPLUS
DN 126:225469
TI Synthesis of α-D-Glcp-(1→2)-αD-Glcp-(1→3)-α-D-Glcp-O-(CH2)8COOCH3 for use in the assay of α-glucosidase I activity. [Erratum to document cited in CA126:199731]
AU Scaman, Christine H.; Hindsgaul, Ole; Palcic, Monica M.; Srivastava, Om P.
CS Dep. of Chemistry, University of Alberta, Edmonton, AB, T6G 2G2, Can.
SO Carbohydrate Research (1997), 298(3), I
CODEN: CRBRAT; ISSN: 0008-6215
PB Elsevier
DT Journal
LA English
AB Figure 2 is reprinted in color.
IT 187729-35-7P
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(synthesis of fluorescent dye-labeled tetrasaccharide as α-glucosidase I substrate (Erratum))
RN 187729-35-7 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[2-[[9-[(O-α-D-glucopyranosyl-(1→2)-O-α-D-glucopyranosyl-(1→3)-α-D-glucopyranosyl)oxy]-1-oxononyl]amino]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

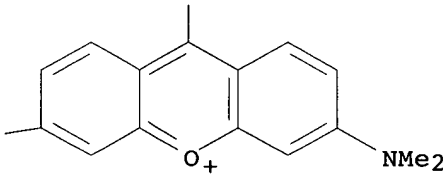


PAGE 1-B



PAGE 2-A

PAGE 2-B

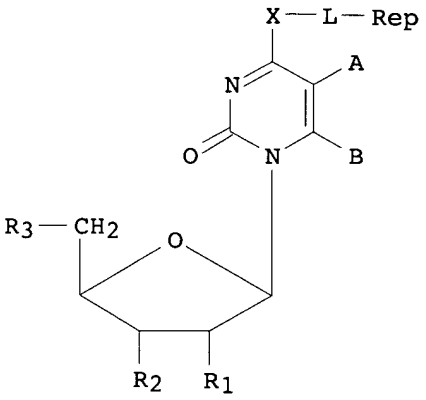


L4 ANSWER 46 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:132784 CAPLUS
DN 126:144508
TI Modified nucleotides for nucleic acid labeling
IN Mishra, Nrusingha C.; Khorshidi, Hossein S.; Gan, Yuxiang; Szweda, Pam; George, Jay
PA Oncor, Inc., USA
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9641006	A1	19961219	WO 1996-US9349	19960607
	W: AU, CA, CN, IL, JP, NZ, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5684142	A	19971104	US 1995-485147	19950607
	AU 9660968	A1	19961230	AU 1996-60968	19960607
	EP 832286	A1	19980401	EP 1996-918275	19960607
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1995-485147	A	19950607		
	WO 1996-US9349	W	19960607		

OS MARPAT 126:144508

GI



I

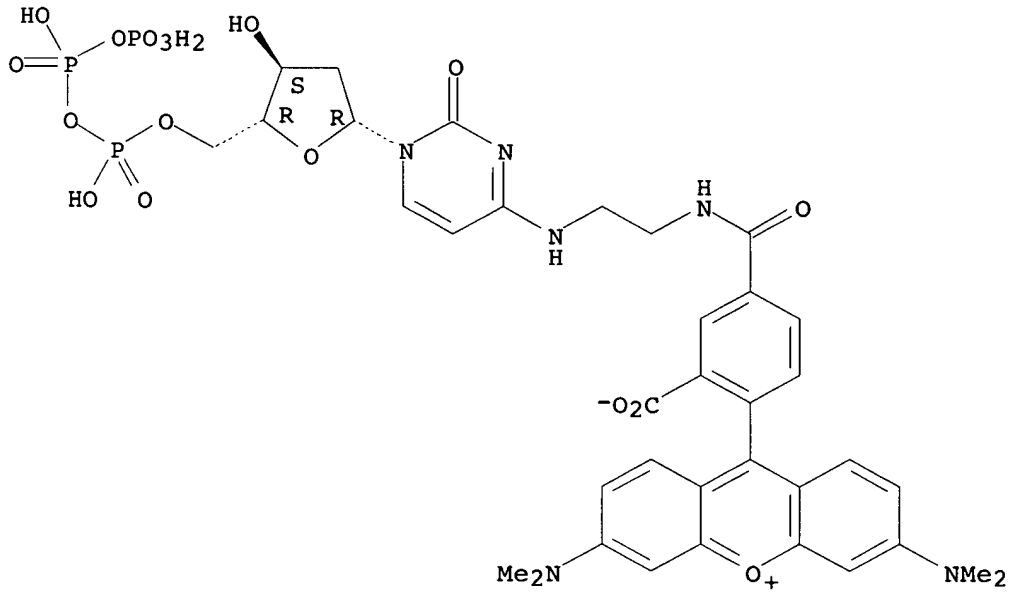
AB Modified pyrimidine bases and nucleotides containing a linker arm and a detectable reporter group for nucleic acid labeling (I; R1=H, OH; R2,R3=H, OH, mono-, di- or triphosphate or thio analogs thereof, O attached to reactive P-containing group or blocking group; A,B=H, electron-donating or -withdrawing group, etc.; X=NH, NHNH, O, S, SO2, CH2; Rep=detectable reporter group; L=linker) are claimed. DCTP with groups such as biotin, fluorescein, and digoxigenin attached to the amino group via linkers were synthesized.

IT 186422-43-5P
RL: ARU (Analytical role, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent)
(modified nucleotides for nucleic acid labeling)

RN 186422-43-5 CAPLUS

CN Cytidine 5'-(tetrahydrogen triphosphate), N-[2-[[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]amino]ethyl]-2'-deoxy-, inner salt (9CI) (CA INDEX NAME)

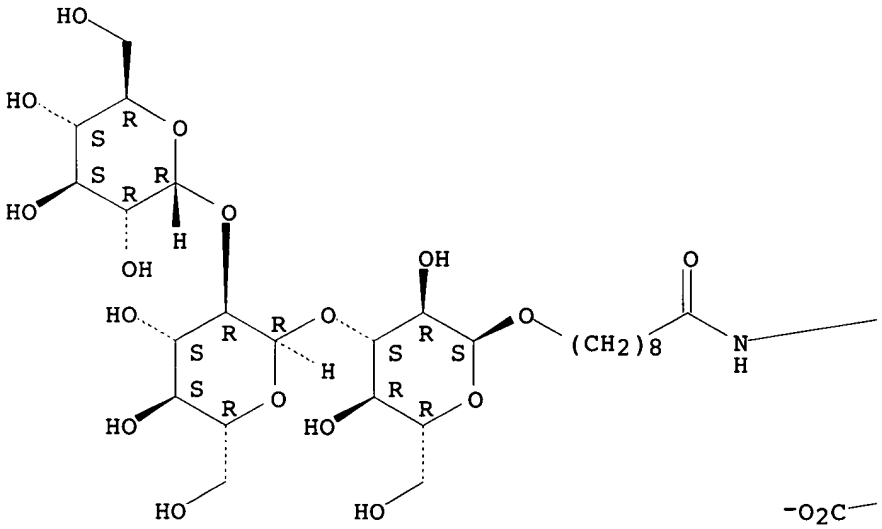
Absolute stereochemistry.



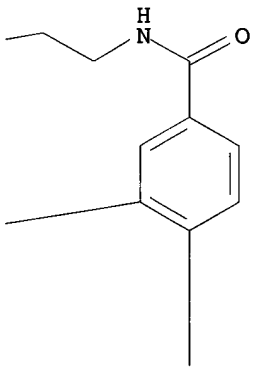
L4 ANSWER 47 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:77929 CAPLUS
DN 126:199731
TI Synthesis of α-D-Glcp-(1→2)-α-D-Glcp-(1→3)-α-D-Glcp-O-(CH2)8COOCH3 for use in the assay of α-glucosidase I activity
AU Scaman, Christine H.; Hindsgaul, Ole; Palcic, Monica M.; Srivastava, Om P.
CS Dep. Chem., Univ. Alberta, Edmonton, AB, T6G 2G2, Can.
SO Carbohydrate Research (1996), 296, 203-213
CODEN: CRBRAT; ISSN: 0008-6215
PB Elsevier
DT Journal
LA English
AB The chemical synthesis of α-D-Glcp-(1→2)-α-D-Glcp-(1→3)-α-D-Glcp-O-(CH2)8CO2CH3 (I), a substrate specific for α-glucosidase I, is reported. This enzyme removes the terminal α-D-Glcp unit to produce α-D-Glcp-(1→3)-α-D-Glcp-O-(CH2)8CO2Me. This is the first synthetic substrate described for glucosidase I that allows kinetic evaluation of substrates and inhibitors of this enzyme. Tetramethylrhodamine was coupled to I through an ethylenediamine linker to produce a brilliant red derivative Addition of this fluorescent dye did not affect enzyme binding to the substrate, as determined by a comparison of the Km value (1.3 mM). The fluorescent label allows visual detection of 2-3 pmol of product by TLC.
IT 187729-35-7P
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(synthesis of fluorescent dye-labeled tetrasaccharide as α-glucosidase I substrate)
RN 187729-35-7 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[2-[[9-[(O-α-D-glucopyranosyl-(1→2)-O-α-D-glucopyranosyl-(1→3)-α-D-glucopyranosyl)oxy]-1-oxononyl]amino]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

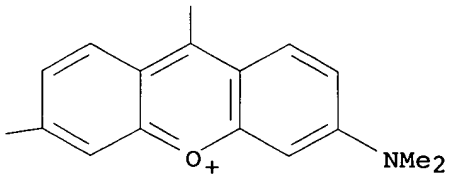
PAGE 1-A



PAGE 1-B



PAGE 2-A

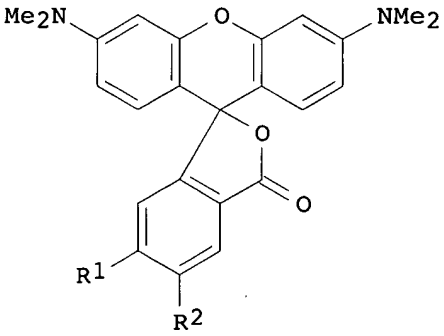


RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

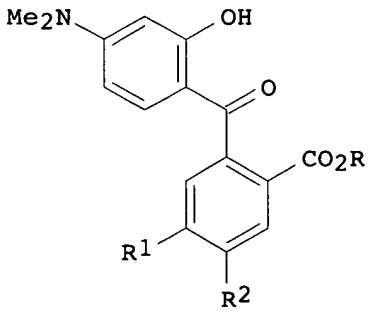
L4 ANSWER 48 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:740960 CAPLUS
DN 123:115340
TI Preparation of rhodamine derivatives as fluorescent labels
IN Corrie, John Edgar Thomas; Craik, James Stanley
PA Medical Research Council, UK
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9509170	A1	19950406	WO 1994-GB2073	19940923
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
	RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9476630	A1	19950418	AU 1994-76630	19940923
PRAI	GB 1993-20019	A	19930928		
	WO 1994-GB2073	W	19940923		

OS CASREACT 123:115340
GI



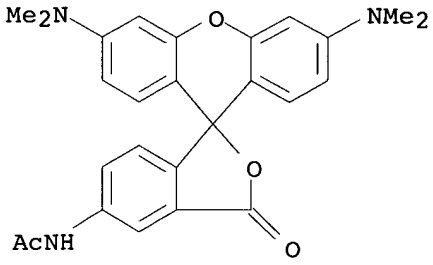
I



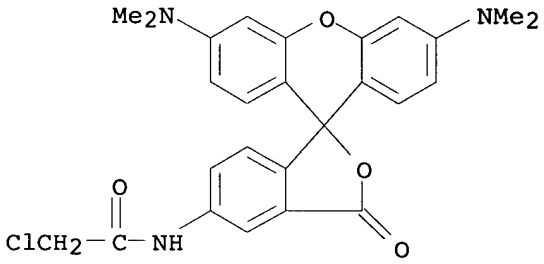
II

AB Title compds. (isomerically pure I; 1 of R1,R2 = H and the other = Br, NHCOCH2X, NH2, maleimido; X = Cl or iodo) were prepared Thus, 4-nitrophthalic anhydride was condensed with 3-(HO)C6H4NMe2 and the products esterified to give benzoylbenzoates II (R = Me, 1 of R1,R2 = H and the other = NO2) which were separated by fractional crystallization and converted in 3 addnl. steps to II (R = H, 1 of R1,R2 = H and the other = NHAc). These were sep. cyclocondensed with 3-(HO)C6H4NMe2 and the products converted in 3 addnl. steps to I (1 of R1,R2 = H and the other = NHCOCH2I).

IT 159435-07-1P 159435-09-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of rhodamine derivs. as fluorescent labels)
RN 159435-07-1 CAPLUS
CN Acetamide, N-[3',6'-bis(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl]- (9CI) (CA INDEX NAME)



RN 159435-09-3 CAPLUS
CN Acetamide, N-[3',6'-bis(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl]-2-chloro- (9CI) (CA INDEX NAME)

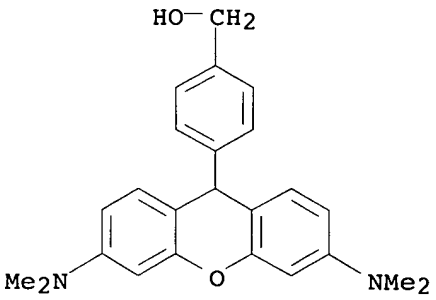


L4 ANSWER 49 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:763653 CAPLUS
DN 123:146702
TI Diaminoxanthenes and their use in observing mitochondria
IN Haugland, Richard P.; Malekzadeh, Mohammad Nabi; Zhang, Yu-Zhong
PA Molecular Probes Inc., USA
SO Brit. UK Pat. Appl., 34 pp.
CODEN: BAXXDU
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2283744	A1	19950517	GB 1994-20661	19941013
	GB 2283744	B2	19971217		
	US 5459268	A	19951017	US 1993-143440	19931025
PRAI	US 1993-143440	A	19931025		

OS MARPAT 123:146702
AB The dyes are fluorescent substituted 3',6'-diaminoxanthenes and their reduced analogs 3',6'-diaminodihydroxanthenes, which are oxidized to the fluorescent form in situ. In their oxidized form, the dyes selectively localize within mitochondria. The dyes include an alkylating group that is covalently attached which assures their retention in mitochondria even after cell death, fixation, and permeabilization.
IT 167095-04-7P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

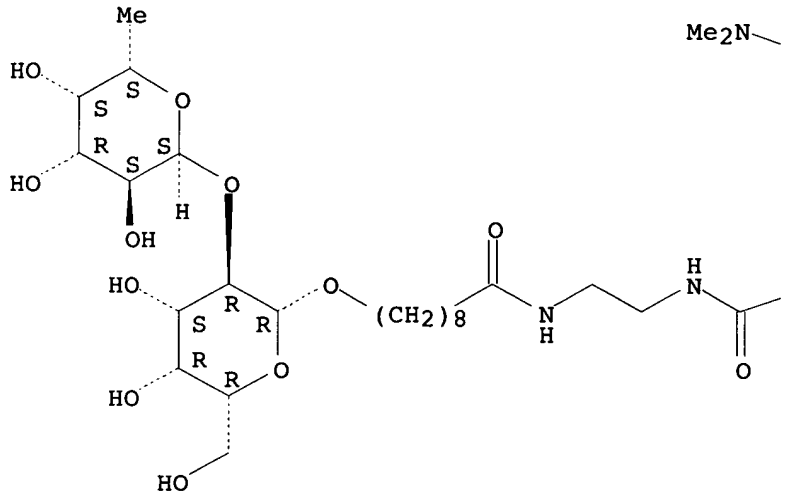
(preparation and chlorination of)
RN 167095-04-7 CAPLUS
CN Benzenemethanol, 4-[3,6-bis(dimethylamino)-9H-xanthen-9-yl]- (9CI) (CA INDEX NAME)



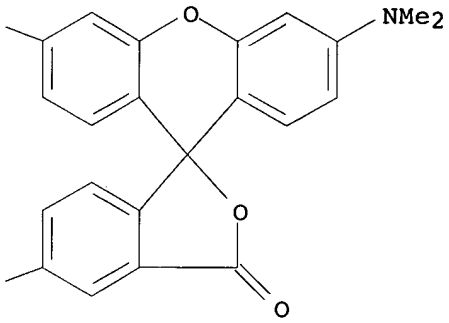
L4 ANSWER 50 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:842300 CAPLUS
DN 123:279337
TI Direct analysis of enzymic reactions of oligosaccharides in human serum using matrix-assisted laser desorption ionization mass spectrometry
AU Whittal, Randy M.; Palcic, Monica M.; Hindsgaul, Ole; Li, Liang
CS Dep. Chem., Univ. Alberta, Edmonton, AB, T6G 2G2, Can.
SO Analytical Chemistry (1995), 67(19), 3509-14
CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB Matrix-assisted laser desorption ionization mass spectrometry has been developed for direct mass anal. of enzymic reaction products of oligosaccharides in human blood serum without the use of extraction or chromatog. separation Mol. labeling of the substrate is used to achieve both the detection sensitivity and selectivity required in rapid anal. of reaction products in serum. It is found that tetramethylrhodamine (TMR)-labeled oligosaccharides provide 100-fold sensitivity enhancement over the corresponding underivatized oligosaccharides. To selectively retain the TMR-labeled mols. on the sample probe while washing away contaminants in a serum sample, a sample/matrix preparation method is developed. This technique provides detection sensitivity of labeled oligosaccharides in the range of hundreds of femtomoles per μL. The mass measurement accuracy is better than 0.01% when a linear time-of-flight mass spectrometer is used. The application of the technique is illustrated for the subpicomole detection and quantitation of the conversion of the disaccharide αFuc(1→2)βGal-TMR to the blood group B active trisaccharide αFuc(1→2)[αGal(1→3)]βGal-TMR, catalyzed by the blood group B galactosyltransferase present in human serum.
IT 169564-98-1
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(direct anal. of enzymic reactions of oligosaccharides in human serum using matrix-assisted laser desorption ionization mass spectrometry)
RN 169564-98-1 CAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-5-carboxamide, N-[2-[[9-[[2-O-(6-deoxy-α-L-galactopyranosyl)-β-D-galactopyranosyl]oxy]-1-oxononyl]amino]ethyl]-3',6'-bis(dimethylamino)-3-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

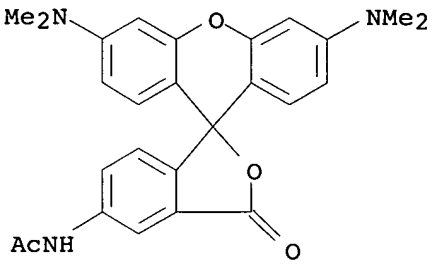


L4 ANSWER 51 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:703039 CAPLUS
DN 121:303039
TI Synthesis and characterization of pure isomers of iodoacetamidotetramethylrhodamine
AU Corrie, John E. T.; Craik, James S.
CS Natl. Inst. Med. Res., London, NW7 1AA, UK
SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1994), (20), 2967-73
CODEN: JCPRB4; ISSN: 0300-922X
PB Royal Society of Chemistry
DT Journal
LA English
AB The isomeric Me benzoylnitrobenzoate esters prepared by condensation of 4-nitrophthalic anhydride and 3-(dimethylamino)phenol (I) followed by esterification with MeOH were separated by fractional crystallization and their structures assigned by NOE difference spectroscopy. Reduction of the NO2 group in each compound followed by acetylation and ester hydrolysis gave the isomeric acetamido acids, which were efficiently condensed with I in the presence of trimethylsilyl polyphosphate to give the resp. acetamidorhodamines. These compds. were converted by standard means into the pure 6- and 5-(iodoacetamido)tetramethylrhodamines. The visible

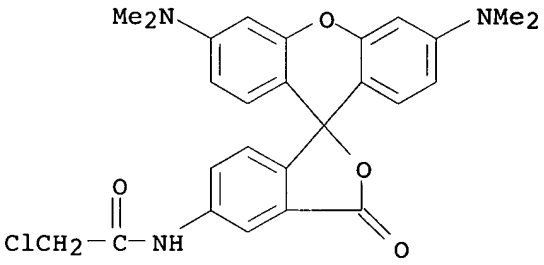
spectroscopic properties of the compds. were examined and accurate extinction coeffs. determined

IT 159435-07-1P 159435-09-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; synthesis and characterization of pure isomers of iodoacetamidotetramethylrhodamine)

RN 159435-07-1 CAPLUS
CN Acetamide, N-[3',6'-bis(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl]- (9CI) (CA INDEX NAME)



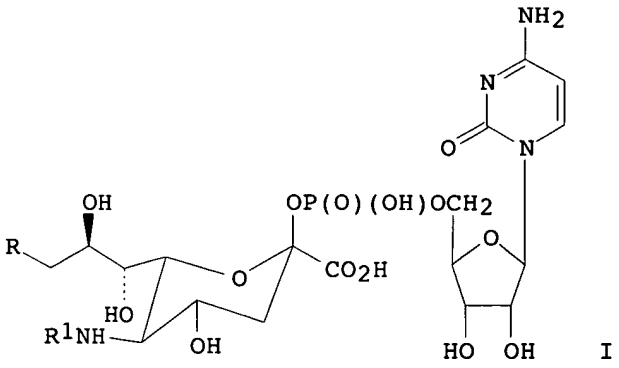
RN 159435-09-3 CAPLUS
CN Acetamide, N-[3',6'-bis(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl]-2-chloro- (9CI) (CA INDEX NAME)



L4 ANSWER 52 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1992:21417 CAPLUS
DN 116:21417
TI CMP-activated fluorescent sialic acids
IN Brossmer, Reinhard; Gross, Hans Juergen
PA Germany
SO Ger. Offen., 14 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4009630	A1	19911002	DE 1990-4009630	19900326
	DE 4009630	C2	19950928		
	WO 9114697	A1	19911003	WO 1991-EP530	19910319
	W: CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	EP 521941	A1	19930113	EP 1991-906420	19910319
	R: CH, DE, FR, GB, LI, NL				
	JP 05507191	T2	19931021	JP 1991-506300	19910319
	US 5405753	A	19950411	US 1992-927406	19920928
PRAI	DE 1990-4009630	A	19900326		
	WO 1991-EP530	W	19910319		

OS MARPAT 116:21417
GI



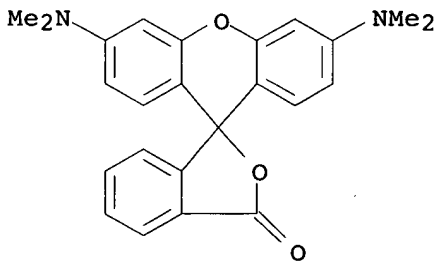
I

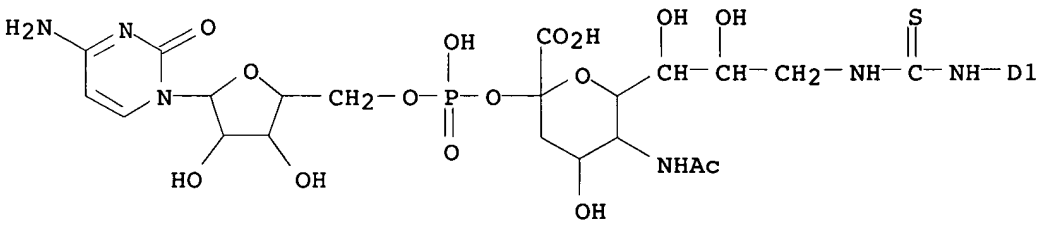
AB Sialic acids I (R = Fl-Sp-X-NH, R1 = acyl; R = OH, acylamino, R1 = Fl-Sp-X-NH-X1-CO; Fl = fluorescent group; Sp = spacer group, bond; X = CO, CS, SO2, triazinyl; X1 = alkylene) were prepared from I (R = NH2, R1 = acyl; R = OH, acylamino, R1 = aminoacyl). I are fluorescence, markers for sialyltransferase activity determination, acceptor specificity determination, cell surfaces, glycoproteins, and gangliosides. CMP-9-aminoneuraminic acid was treated with fluoresceinyl isothiocyanate to give 90% CMP 9-fluoresceinylaminoneuraminic acid I (R = fluoresceinylaminothiocarbonyl, R1 = Ac).

IT 137930-08-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 137930-08-6 CAPLUS

CN β-Neuraminic acid, N-acetyl-9-[[[[3',6'-bis(dimethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]amino]thioxomethyl]amino]-9-deoxy-, 2-(hydrogen 5'-cytidylate) (9CI) (CA INDEX NAME)



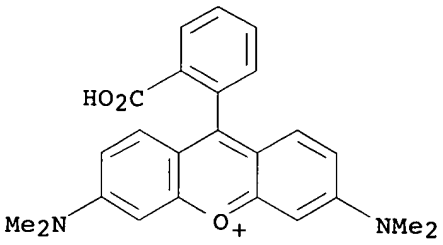


L4 ANSWER 53 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1991:652417 CAPLUS
DN 115:252417
TI Labeling of developing vascular endothelium after injections of rhodamine-dextran into blastomeres of Xenopus laevis
AU Rovainen, Carl M.
CS Sch. Med., Washington Univ. Sch. Med., St. Louis, MO, 63110, USA
SO Journal of Experimental Zoology (1991), 259(2), 209-21
CODEN: JEZOAO; ISSN: 0022-104X
DT Journal
LA English
AB The goal of this work was to label endothelial cells with fluorescent marker and to record their behavior during angiogenesis in vivo. Single blastomers in 16-128-cell-stage embryos of pigment-deficient X. laevis were injected intracellularly with 5% tetramethylrhodamine dextran. Subsequently, the embryos and tadpoles were examined with an epifluorescence microscope, a silicon-intensified target (SIT) camera, and video recordings. Clones that would include endothelium could be selected as early as stages 33-36 on the basis of heavy labeling in the ventral mesodermal core of the tail. Strands of fluorescent cells and early vessels appeared in the tail at stages 39-41. Subsequently, groups of endothelial cells were followed in case histories in the tail and in the aortic arches and gills of tadpoles. The patterns of fluorescent endothelial cells were stable in established arteries, veins, and capillaries for at least 2-12 days, and labeled endothelial cells migrated distally in elongating sprouts. It was inferred that endothelium was derived from multiple blastomeres, probably in the ventral vegetal regions. Only small fractions of total endothelium were labeled from any single blastomere. None of the early blastomeres produced exclusive clones or vascular endothelium; other labeled cell types in various clones included muscle fibers, lymphatics, mesodermal stellate cells, blood cells, gut, proctodeum, and some epidermis, in addition to endothelial cells. The method of intracellular marking of blastomeres is recognized as a direct approach for charting lineage and fate tables in embryos of Xenopus and other species. This study extends the period of observation in vivo for up to 2 wk in the growing tadpole and focuses on endothelial cells during angiogenesis. Even though fluorescent dextran was apparently packaged in vesicles and metabolized, individual cells and small groups could be identified and followed with time. This method provides excellent opportunities for addressing problems in vascular development in the living animal.
IT 137455-29-9
RL: BIOL (Biological study)
(injection of, into frog blastomeres, labeling of developing vascular endothelium by)
RN 137455-29-9 CAPLUS
CN Dextran, compd. with 9-(2-carboxyphenyl)-3,6-bis(dimethylamino)xanthylium chloride (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 70281-37-7
CMF C24 H23 N2 O3 . Cl



● Cl-

CM 2

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L4 ANSWER 54 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1990:56583 CAPLUS
DN 112:56583
TI Solid phase synthesis of rhodamine-labeled oligonucleotides using nonnucleophilic hindered alkylamines as support cleavage reagents
IN Woo, Sam Lee; Fung, Steven; Menchen, Steven M.
PA Applied Biosystems, Inc., USA
SO Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 323152	A2	19890705	EP 1988-312206	19881222
	EP 323152	A3	19910410		
	EP 323152	B1	19950215		
	R: BE, DE, FR, GB, IT, LU, NL, SE				
	US 4965349	A	19901023	US 1987-138287	19871224
	JP 02000796	A2	19900105	JP 1988-320745	19881221
	JP 2787775	B2	19980820		
	EP 617047	A1	19940928	EP 1994-107016	19881222
	EP 617047	B1	20010718		
	R: BE, DE, FR, GB, IT, LU, NL, SE				
	US 5231191	A	19930727	US 1990-601961	19901022
PRAI	US 1987-138287	A	19871224		
	EP 1988-312206	A3	19881222		

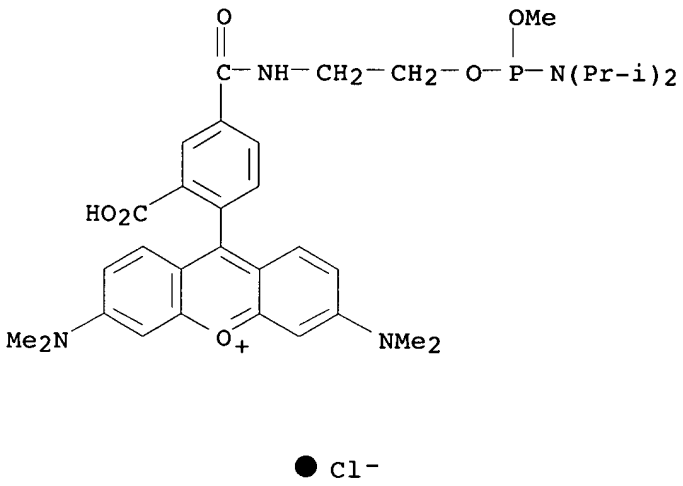
OS MARPAT 112:56583
AB A cleavage reagent for hydrolyzing base-labile linking groups between a solid phase support and oligonucleotides comprises a lower alkyl alc., H2O, and a nonnucleophilic hindered C3-6 alkylamine in a ratio of a 1:1:1-.apprx.1:3:1, resp. The mild property of the cleavage reagent preserves the fluorescent characteristics of rhodamine dyes during cleavage, thus making it possible to completely synthesize rhodamine-labeled oligonucleotides by the solid phase methods. Preferred alkylamines are Me2CHNH2, tert-BuNH2, Et2NH, piperidine, tert-amylamine, (Me2CH)2NH, and Pr2NH. Typically, cleavage and deprotection of a protected oligonucleotide attached via succinimate ester to a solid phase support was effected by 1:2:1, 1:1:1, or 2:2:1 mixture of MeOH;H2O:tert-BuNH2, resp. Some rhodamine phosphoramidites for labeling

oligonucleotides were prepared

IT 124911-46-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for fluorescence-labeling oligonucleotides)

RN 124911-46-2 CAPLUS

CN Xanthylium, 9-[4-[[[2-[[[bis(1-methylethyl)amino]methoxyphosphino]oxy]ethyl]amino]carbonyl]-2-carboxyphenyl]-3,6-bis(dimethylamino)-, chloride (9CI) (CA INDEX NAME)



L4 ANSWER 55 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1988:551451 CAPLUS

DN 109:151451

TI Isomerically pure 5- and 6-succinimidooxycarbonyl derivatives of rhodamine dyes as fluorescent labels for DNA sequencing

IN Menchen, Steven M.; Fung, Steven

PA Applied Biosystems, Inc., USA

SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW

DT Patent

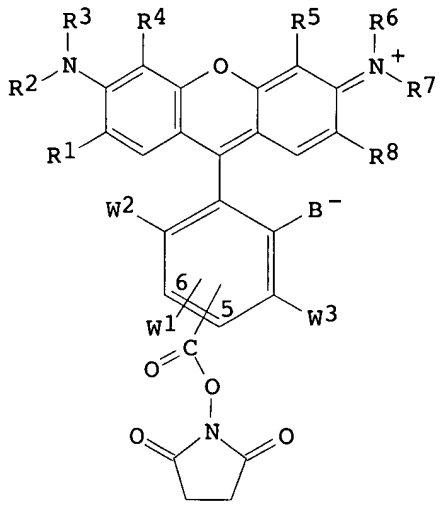
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 272007	A2	19880622	EP 1987-310256	19871120
	EP 272007	A3	19881102		
	EP 272007	B1	19920304		
	R: DE, FR, GB, SE				
	JP 63151839	A2	19880624	JP 1987-264045	19871021
	JP 2527340	B2	19960821		
PRAI	US 1986-941985	A	19861215		

OS MARPAT 109:151451

GI



I

AB Isomerically pure 5- and 6-succinimidooxycarbonyl derivs. of rhodamine dyes I (B- = anionic group; R1, R4, R5, R8 = H, halogen, C1-8 alkyl C1-8 alkoxy, C1-8 thioalkoxy; R2, R3, R6, R7 = C1-8 alkyl; W1-W3 = H, Cl), useful in DNA chain-termination sequencing procedures, are prepared Using the pure isomeric forms of the title compds. prevents generation of spurious sequence data because of the different electrophoretic mobilities of the isomers. Tetramethylrhodamine-6-carboxylic acid was separated from the 5-isomer by column chromatog., condensed with di-N-succinimidyl carbonate in THF in the presence of 4-(dimethylamino)pyridine, forming tetramethylrhodamine 6-succinimidooxycarbonyl derivative acetic acid salt.

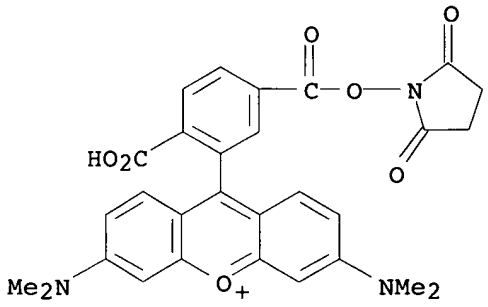
IT 116763-27-0D, condensation products with aminoethyl oligonucleotides
RL: USES (Uses)
(fluorescently labeled nucleotides)

RN 116763-27-0 CAPLUS

CN Xanthylium, 9-[2-carboxy-5-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl]-3,6-bis(dimethylamino)-, acetate (9CI) (CA INDEX NAME)

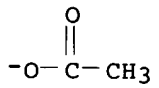
CM 1

CRN 116763-26-9
CMF C29 H26 N3 O7



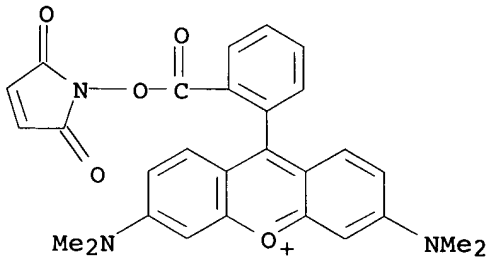
CM 2

CRN 71-50-1
CMF C2 H3 O2



RL: PREP (Preparation)
(manuf. of, as fluorescent label for DNA sequencing

L4 ANSWER 56 OF 56 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1988:622924 CAPLUS
DN 109:222924
TI Fluorescent glucagon derivatives. I. Synthesis and characterization of fluorescent glucagon derivatives
AU Heithier, Helmuth; Ward, Larry D.; Cantrill, Richard C.; Klein, Helmut W.; Im, Mi Jae; Pollak, Gabriele; Freeman, Barbara; Schiltz, Emile; Peters, Reiner; Helmreich, Ernst J. M.
CS Dep. Physiol. Chem., Univ. Wuerzburg, Wuerzburg, Fed. Rep. Ger.
SO Biochimica et Biophysica Acta, Molecular Cell Research (1988), 971(3), 298-306
CODEN: BBAMCO; ISSN: 0167-4889
DT Journal
LA English
AB The synthesis of monofluorescein, monorhodamine, and mono-4-nitrobenz-2-oxa-1,3-diazole (NBD) derivs. of glucagon is reported. The fluorescent groups were introduced by converting tryptophan-25 to 2-thioltryptophan using thiol-specific fluorescent reagents. All derivs. retained the ability to activate adenylate cyclase when compared to glucagon and thus were considered full agonists. IC50 values of 6.8 + 10-9, 1.7 + 10-8, 1.8 + 10-8, and 5.4 + 10-9M were measured in rat liver membranes for NBD-, fluorescein-, rhodamine-Trp25-glucagon, and native glucagon, resp. From the IC50 values Kd values of 216 + 10-9, 4 + 10-9, 2 + 10-9, and 1.72 + 10-9M were calculated for the binding of NBD-, fluorescein, rhodamine-Trp25-glucagon, and native glucagon, resp. The highest quantum yield (0.18) of the monomer derivs. was obtained with fluorescein-Trp25-glucagon in phosphate-buffered saline (pH 7.4). Difluorescein-glucagon was also prepared by reacting the amino groups of histidine-1 and lysine-12 with fluorescein isothiocyanate and dimer derivs. were prepared using fluorescein-labeled 2-thiol Trp25-glucagon. Difluorescein-glucagon bound only weakly to glucagon receptors and displayed antagonist properties. The dimer derivative formed from 2 difluoroescein-2-thiol Trp25-glucagon mols. had similar poor binding qualities, whereas the dimer formed from difluorescein-2-thiol Trp25-glucagon and 2-thiol Trp25-glucagon exhibited, at low concns., properties similar to monofluorescein-glucagon. Both dimer derivs. were only sparingly soluble in aqueous medium. Specific binding of fluorescein-Trp25-glucagon and difluorescein-glucagon to rat hepatocytes was followed using flow cytometry.
IT 117635-09-3DP, glucagon derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and biol. activity of)
RN 117635-09-3 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)oxy]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (9CI) (CA INDEX NAME)



● Cl^-

```
=>
=> s l4 and aphenyl?
L5           56 S L4
              7 APHENYL?
L6            0 L5 AND APHENYL?

=> s l4 and rhodamine (10a) aromatic
L7           56 S L4
          20711 RHODAMINE
         229315 AROMATIC
              8 RHODAMINE (10A) AROMATIC
L8            0 L7 AND RHODAMINE (10A) AROMATIC

=>
```